P.H. 19/1944

Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEARS 1941 and 1942.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2.
Printers to His Majesty the King.

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TO THE CHAIRMAN, ALDERMEN AND MEMBERS OF THE COUNTY COUNCIL OF MIDDLESEX.

Sir, My Lord, Ladies and Gentlemen,

I have the honour to present my report upon the public health of Middlesex and upon the health and casualty services of the County Council for the years 1941 and 1942. The policy of recording in one volume the events of two years has again been followed and has again been directed by force of circumstances rather than choice.

The report on the whole is much condensed, partly for economy of time and paper, partly through the omission of certain particulars, figures and tables for security reasons. If it appears that a disproportionate amount of space has been devoted to the sections dealing with general hospitals and with tuberculosis, it is for the reason that very great and rapid developments occurred in those two services during the period under review. In this connection attention is particularly directed to the paragraphs on hospital administration on pages 13 to 16 and on the rehabilitation of the tuberculous on pages 36 and 37, since so far as is known these embody principle snew to municipal medicine.

At the start of the period covered by the report the night bombardment of Greater London was at its height. When in the spring of 1941 this slackened and ultimately ceased the energies of the staff of the Public Health Department were able to be diverted from the Civil Defence Casualty Service and concentrated more upon the ordinary health needs of the County. Later some very necessary post-war planning even became possible. In March, 1942 the very considerable section of the head office staff, which from the start of the war had worked in improvised accommodation at the headquarters of Group 6 of the London Civil Defence Region, was able to return to No. 10, Great George Street, Westminster, to the great benefit of central administration. Direct telephone lines kept the department in close touch with the control room by day and a medical officer and ambulance officer continued to be on duty there by night.

In spite of the continued strain of war, overwork, fatigue, inconveniences, and often much worse, the health of the people has remained remarkably satisfactory. Epidemic illness has kept within low limits; the incidence of diphtheria reached a new low record figure in 1942. The birth rate for the same year showed a most satisfactory rise and reached a higher level than had been attained since 1923, whilst the maternal mortality rate was the lowest on record. Only tuberculosis continues to give some cause for anxiety.

I should like to place on record my gratitude to the Chairman and members of the Public Health Committee for their unvarying helpfulness and support which have been of the greatest encouragement through many difficult days. My thanks also are due in the fullest measure to my staff who have loyally and cheerfully accepted additional burdens and worked long hours. Especially would I mention Dr. Perkins, the Deputy County Medical Officer, whose help and advice have been invaluable.

I have the honour to be,

Your obedient servant,

H. M. C. MACAULAY,

County Medical Officer.

Public Health Department,

10, Great George Street,

Westminster, S.W.1.

March, 1944.

STAFF.

WHOLE-TIME OFFICERS.

County Medical Officer of Health and School Medical Officer :

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

Deputy County Medical Officer of Health and Deputy School Medical Officer :

A. C. T. Perkins, *M.C.*, M.D., B.S., D.P.H.

Principal Assistant Medical Officers :

Miss M. Back, M.D., B.S., D.P.H.
J. O. F. Davies, M.D., B.S., D.P.H., D.R.C.O.G.
J. B. Ewen, M.D., Ch.B., D.P.H.
T. O. Garland, M.A., M.D., B.Ch., D.P.H.

Tuberculosis Medical Officers :

O. Bruce, M.R.C.S., L.R.C.P.
S. Trevor Davies, M.R.C.S., L.R.C.P.
J. R. B. Dobson, M.B., B.S., B.Sc.
H. Evans, M.D., Ch.B., D.P.H.
A. S. Hall, M.A., M.B., M.R.C.P.
G. G. Kayne, M.D., M.R.C.P., D.P.H.
J. T. N. Roe, M.D., Ch.B., D.P.H.
B. C. Thompson, M.A., M.D., B.Ch. (Appointed 19th January, 1942)

Assistant Medical Officers :

(*Maternity and Child Welfare and School Medical Services*)

Miss J. R. Campbell, M.B., Ch.B., D.P.H.
Miss M. L. Campbell, M.B., B.Ch., B.A.O., D.P.H.
Mrs. D. L. Carter, M.B., B.S. (Appointed July, 1942)
Mrs. F. E. Court, M.B., Ch.B. (Appointed September, 1942)
Mrs. M. Evans, M.D., F.R.C.S.
Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.
Miss M. M. Goudie, M.B., Ch.B. (Resigned 21st June, 1942)
*R. A. Jones, M.B., Ch.B., B.Sc., D.P.H.
Miss E. M. Malmberg, M.B., B.S., D.P.H.
*G. B. Matthews, M.R.C.S., L.R.C.P.
H. W. Moir, M.B., Ch.B., D.P.H.
Miss M. M. O'Connor, M.R.C.S., L.R.C.P., D.P.H.
Mrs. M. M. Osborn, M.R.C.S., L.R.C.P.
Mrs. E. G. Porter, M.R.C.S., L.R.C.P., D.P.H.
†Miss M. K. Ruddy, M.D., B.S., B.Sc.
‡Miss M. V. Saul, M.B., B.S. (Appointed July, 1942)
Mrs. E. Shannon, M.B., Ch.B. (Appointed May, 1942)
Mrs. R. H. Shelley, M.B., B.S.
Miss E. S. Stephen, M.B., Ch.B., D.P.H.
J. R. Tibbles, M.B., Ch.B., D.P.H.
Miss G. Wilson, M.A., M.B., Ch.B., D.P.H.
Miss C. I. Wright, M.D., B.S., D.P.H.

Senior Dental Officer :

J. F. Pilbeam, L.D.S.

Assistant Dental Officers :

K. T. Adamson, L.D.S.
Mrs. E. R. Banowitz, M.D. (Appointed August, 1942)
Mrs. J. Bard, L.D.S. (Appointed October, 1942)
Miss I. M. M. Cameron, L.D.S.
Mrs. A. Caplin. (Appointed September, 1941)
*A. S. Carr, L.D.S.
*S. E. Charman, L.D.S.
R. E. Cook, L.D.S.
G. M. Davie, L.D.S.
H. Deutsch, M.D. (Appointed December, 1941)
Mrs. A. M. Ferry, L.D.S.
Miss F. M. Goodman, L.D.S. (part-time)
W. G. C. Hackman, L.D.S.
Miss I. Halsall, L.D.S. (Appointed June, 1942)
Miss C. M. Henderson, L.D.S.
Mrs. C. M. House, L.D.S. (Appointed February, 1941)
Mrs. E. M. Jones, L.D.S. (Appointed July, 1942)
*F. Jones, L.D.S.
*R. V. Kingham, L.D.S.
W. A. Lilley, L.D.S.
*F. J. Lord, L.D.S.
*S. A. McLaren, L.D.S.
*L. C. Mandeville, L.D.S.
*R. S. Matthew, L.D.S.
R. Maxwell, L.D.S.
Mrs. I. M. Pritchard, L.D.S.
P. Rover, L.D.S. (Appointed December, 1941)
Mrs. T. Schroetter, M.D. (Appointed September, 1942)
E. Sharp, L.D.S.
Mrs. F. M. Sievers, L.D.S.
P. Simche, M.D. (Appointed May, 1942)
Miss E. M. Young, L.D.S. (Appointed June, 1942)

Non-medical Supervisor of Midwives :

Miss L. B. Young, S.R.N., S.C.M.

	1941	1942
Tuberculosis Visitors	17	22
Health Visitors and School Nurses	44	48
Dental Nurses and Dental Attendants	22	25
Midwives	30	31

Ambulance Officer for Civil Defence :

C. H. Oliver, Barrister at Law.

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* In H.M. Forces. † Psychiatrist, Middlesex Education Committee.
‡ Asst. Psychiatrist, Middlesex Education Committee.

PART-TIME OFFICERS.

Ophthalmic Surgeons :

(Maternity and Child Welfare, School Medical Service, Certification of Blind Persons)

Miss A. L. Adam, M.B., B.S., D.O.M.S.
J. M. Bickerton, M.A.,, B.Ch., F.R.C.S.
C. J. L. Blair, M.R.C.S., L.R.C.P.
Miss Jean M. Dollar, M.S., F.R.C.S., D.O.M.S.
R. E. Henry, M.B., Ch.M., D.O.M.S.
Miss E. Howes, M.R.C.S., L.R.C.P.
J. Joels, M.B., Ch.B., D.O.M.S.
†E. F. King, M.B., Ch.B., F.R.C.S., D.O.M.S.
J. Cole Marshall, M.D., F.R.C.S. (Resigned October, 1941.)
†N. H. L. Ridley, M.A., M.B., B.Chir., F.R.C.S.
†C. D. Shapland, M.B., B.S., M.R.C.P., F.R.C.S.
†H. H. Skeoch, M.B., Ch.M., F.R.C.S., D.O.M.S.
C. Yow, M.D., Ch.B.

HOSPITALS, INSTITUTIONS AND SANATORIA.*

North Middlesex County Hospital.

Medical Superintendent :
Ivor Lewis, M.D., M.S., D.P.H.

Deputy Medical Superintendent and Obstetric Surgeon :
K. A. Hudson, M.B., Ch.M., M.R.C.O.G.

Physicians :
R. Kempthorne, M.A., B.M., B.Ch., M.R.C.P.
(One vacancy)

Surgeons :
H. O. Blauvelt, M.D., C.M., F.R.C.S.
H. W. Hall, M.B., B.S., F.R.C.S.

Obstetric Surgeon :
A. W. Purdie, M.B., Ch.B., F.R.F.P. & S., M.R.C.O.G.

Pathologist :
H. Rogers, M.D., Ch.B.

Assistant Medical Officers : 12.

House Officers : 2.

Matron :
Miss D. G. Rootham.

Redhill County Hospital.

Medical Superintendent :
J. N. Deacon, *M.C.*, M.B., B.S.

Deputy Medical Superintendent and Senior Anæsthetist :
†J. H. Attwood, M.B., B.S., D.A.

Physicians :
G. H. Jennings, M.A., M.D., M.R.C.P. (Acting Deputy Medical Superintendent.)
L. I. M. Castleden, M.D., M.R.C.P.

Surgeons :
D. B. Craig, F.R.C.S., D.L.O.
F. Forty, M.B., B.S., F.R.C.S.
R. Trevor Jones, B.Sc., M.B., B.S., F.R.C.S. (part-time).

Obstetric Surgeons :
E. ap I. Rosser, M.B., B.S., M.R.C.O.G.
R. M. Millen, M.D., M.R.C.O.G.

Pathologist :
J. L. Hamilton-Paterson, M.D., B.S.

Assistant Medical Officers : 8.

House Officers : 2.

Matron :
Miss E. R. Wheeldon.

Central Middlesex County Hospital.

Medical Superintendent :
H. Joules, M.D., M.R.C.P.

Deputy Medical Superintendent and Physician :
F. Avery Jones, M.D., M.R.C.P.

Physicians :
A. Barham Carter, M.D., M.R.C.P., D.P.M.
J. Sakula, M.D., M.R.C.P., D.C.H.

Obstetric Surgeon :
J. S. MacVine, M.B., B.S., F.R.C.S., M.R.C.O.G.

Surgeons :
T. G. I. James, B.Sc., M.Ch., F.R.C.S.
J. D. Fergusson, F.R.C.S.

Pathologists :
†J. D. A. Gray, B.Sc., M.B., Ch.B., F.R.C.P., D.P.H.
W. Pagel, M.D.
J. H. Humphrey, B.A., M.B., Ch.B.

Assistant Medical Officers : 7.

House Officers : 0.

Matron :
Miss E. S. Laing.

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* Staff as on 31st December, 1942. † In H.M. Forces.

HILLINGDON COUNTY HOSPITAL.

Medical Superintendent :
W. A. Steel, M.D., F.R.C.P.

Deputy Medical Superintendent and Physician :
E. B. Jackson, M.D., M.R.C.P.

Surgeons :
L. Fatti, M.B., B.S., F.R.C.S.
G. W. Duncan, M.B., B.S., F.R.C.S.

Obstetric Surgeon :
Miss J. Morgan, M.D., M.R.C.O.G.

Assistant Medical Officers : 6.

House Officers : 1.

Matron :
Miss E. Hagland.

WEST MIDDLESEX COUNTY HOSPITAL.

Medical Superintendent :
J. B. Cook, M.D., Ch.B., D.P.H.

Deputy Medical Superintendent :
Miss M. W. Warren, M.R.C.S., L.R.C.P.

Physicians :
M. M. Deane, M.B., B.S. M.R.C.P., D.P.M.
F. J. V. Jenner, M.R.C.P.

Surgeons :
W. J. Ferguson, M.S., F.R.C.S.
J. Scholefield, F.R.C.S.

Obstetric Surgeons :
D. M. Stern, M.A., F.R.C.S., M.R.C.O.G.
Miss I. M. Titcomb, M.A., B.M., B.Ch.

Pathologists :
W. Broughton-Alcock, B.A., M.B.
A. C. Counsell, M.B., B.S., D.P.H.

Senior Anæsthetists :
A. H. L. Baker, B.A., L.M.S.S.A., D.A.
Miss E. M. Chivers, M.B., Ch.B., D.A.

Assistant Medical Officers : 11.

House Officers : 3.

Matron :
Miss E. Huggins.

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*CHASE FARM EMERGENCY HOSPITAL.

Medical Superintendent :
R. L. Galloway, M.B., ChB., F.R.C.S.

Deputy Medical Superintendent and Physician :
C. A. Birch, M.D., M.R.C.P., D.P.H., D.C.H.

Assistant Medical Officer : 1.

House Officers : 8.

Matron :
Miss E. Sewell.

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*STAINES COUNTY HOSPITAL.

Medical Superintendent :
G. Stephen, M.B., Ch.B., F.R.C.S.

Deputy Medical Superintendent :
A. B. McLean, M.B., B.S.

Surgeon :
N. M. Matheson, M.B., B.Ch. F.R.C.S., M.R.C.P.

Physician : Vacant.

Assistant Medical Officer : 1.

House Officers : 4.

Matron :
Mrs. I. Lang.

EDGBURY CONVALESCENT HOME, WOBURN SANDS.

Medical Officer (part-time) :
J. Richardson, M.R.C.S., L.R.C.P.

Matron :
Miss M. A. Bishop, *R.R.C.*

MIDDLESEX COUNTRY HOSPITAL, HAREFIELD PLACE.

Medical Officer :
W. A. Steel, M.D., F.R.C.P.

Matron :
Miss C. Woodward.

MIDDLESEX COUNTY MATERNITY HOSPITAL, BUSHEY HEATH.

Medical Officer :
J. N. Deacon, *M.C.*, M.B., B.S.

Assistant Medical Officers : 2

Matron :
Miss E. R. Wheeldon.

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* The additional medical staff of these emergency hospitals is provided by the Emergency Medical Service.

*County Sanatorium and Emergency Hospital, Harefield.

Acting Medical Superintendent :
K. R. Stokes, M.R.C.S., L.R.C.P.

Acting Deputy Medical Superintendent and Physician :
L. E. Houghton, M.A., M.D.

Assistant Medical Officers : 7. *House Officers :* 5.

Matron :
Miss B. A. Shaw.

County Sanatorium, Clare Hall, South Mimms.

Medical Superintendent :
F. A. H. Simmonds, M.A., M.D., B.Chir., D.P.H.

Deputy Medical Superintendent :
A. G. Hounslow, M.D., B.S.

Physician : Vacant.

Assistant Medical Officers : 8. *House Officer :* 1.

Matron :
Miss A. R. Spall.

Danesbury Manor Convalescent Home, Welwyn, Herts.

Medical Superintendent ;
F. A. H. Simmonds, M.A., M.D., B.Chir., D.P.H.

Matron :
Miss E. M. Watts.

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* The additional medical staff of this emergency hospital is provided by the Emergency Medical Service.

SUMMARY OF IMPORTANT STATISTICS RELATING TO THE ADMINISTRATIVE COUNTY OF MIDDLESEX.

	1941			*1942*		
Area (including inland water)				148,691 *acres*		
Population 1931 (census)				1,638,728		
„ 1941 and 1942				1,874,900		1,929,900
Number of structurally separate dwellings occupied, 1931 (census)				348,595		
Number of private families, 1931 (census)				431,368		
Rateable value				£21,553,157		£21,582,046
Product of a penny rate, financial year				£83,977		£84,586
Live births—	M.	F.	Total.	M.	F.	Total.
Legitimate	13,057	12,531	25,588	16,132	15,415	31,547
Illegitimate	680	659	1,339	824	779	1,603
Birth-rate			14·4			17·2
Stillbirths			816			979
„ Rate per 1,000 total births			29·4			28·7
Deaths			20,804			20,294
Death-rate			11·1			10·5
Number of women dying from diseases and accidents of pregnancy and childbirth :—						
From sepsis			23			·23
From other causes			41			49
Maternal mortality-rate per 1,000 live births			2·51			2·17
„ „ „ „ total „			2·43			2·11
Infantile mortality-rate per 1,000 live births :—						
Legitimate			50			45
Illegitimate			80			79
Total			52			47
Deaths from cancer (all ages)			3,229			3,517
„ measles (all ages)			38			18
„ whooping cough (all ages)			80			38
„ diarrhœa (under 2 years of age)			187			264

Administrative County of Middlesex.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEARS 1941 and 1942.

Natural and Social Conditions.

AREA.—The area of the County of Middlesex, inclusive of inland water, is 148,691 acres.

There are no county boroughs in Middlesex, so that the area of the administrative county coincides with that of the geographical county.

There are 26 separate local government areas in the County as follows :—15 municipal boroughs with an area of 70,196 acres and 11 urban districts with an area of 78,495 acres. There are no rural districts in the County.

POPULATION.—In 1941 the estimated population was 1,874,900, a decrease of 77,200 on the previous year. The reduction occurred largely in districts adjacent to the County of London, whereas small increases took place in peripheral areas of the County. The movement of population which took place on a large scale during the previous year was substantially less in 1941.

The estimated resident population in 1942 shows an increase of 55,000 on the figures for 1941, the Registrar-General's estimate being given as 1,929,900.

The outward movement of population which had existed since the outbreak of war was replaced during 1942 by a return flow which showed itself in the increased population of the inner local sanitary areas and slight decreases in the peripheral districts of Middlesex.

For national security reasons the table showing the population in each separate area in the County is again excluded from the report.

As was the case in 1940, estimates of the number and distribution of non-civilian population were not available and the population figures provided by the Registrar-General for the calculation of death rates or the incidence of notifiable diseases amongst civilians are again used for the calculation of birth rates in 1941 and 1942.

BIRTHS AND BIRTH-RATES.—Birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales are given in the following table :—

Year.	The County		London	Great Towns	England and Wales
	Live births	Rate per 1,000 living	Rate per 1,000 living	Rate per 1,000 living	Rate per 1,000 living
1938	31,617	15·4	13·4	15·0	15·1
1939	*31,871	15·2	12·3	14·8	15·0
1940	*29,517	15·1	13·7	16·0	14·6
1941	*26,927	14·4	8·9	14·7	14·2
1942	†33,150	17·2	14·0	17·3	15·8

* These figures are not applicable to the calculation of infant and maternal mortality rates, in respect of which a secondary assignment of births has been made by the Registrar-General.

† Applicable to the calculation of infant and maternal mortality rates as the secondary assignment of births for this purpose has been discontinued.

The birth-rate for 1941 is the lowest recorded since 1933. In considering causes of the fall in the birth-rate compared with previous years the exceptional disturbance of family life and domestic conditions caused by a prolonged series of air raids during the autumn of 1940 and the succeeding winter was undoubtedly a major factor.

In 1942 a noteworthy recovery in the birth-rate is recorded, the figure of 17·2 being the highest in Middlesex since 1923. The rise in the birth-rate was accompanied by an increase in requests for institutional accommodation for confinements, and additional demands on maternity accommodation resulted from difficulties met by expectant mothers who, under normal conditions, would have remained in their own homes but who, for domestic reasons due to war conditions, found it necessary to seek admission to maternity wards.

Deaths and Death-Rates (all causes).—The comparative figures for Middlesex, London, the Great Towns and England and Wales as a whole are set out in the following table :—

Year	The County		London	Great Towns	England and Wales
	Deaths	Rate per 1,000 living	Rate per 1,000 living	Rate per 1,000 living	Rate per 1,000 living
1938	18,680	9·1	11·4	11·7	11·6
1939	19,295	9·4	11·9	12·0	12·1
1940	23,277	11·9	17·8	15·8	14·3
1941	20,804	11·1	16·3	14·9	12·9
1942	20,294	10·5	13·9	13·3	11·6

In view of the variety and magnitude of population movements and the uneven incidence of civilian war deaths, the Registrar-General decided that it was no longer possible to secure comparability between local death rates, and the issue of a " comparability factor " for each county and county district has been suspended. Figures of the " corrected " death-rate are therefore not available.

The table which follows gives information as to the number of deaths under 1 year and the death-rate in each district in Middlesex. The number of deaths " at all ages " is again omitted for security reasons.

Deaths and Death-Rates in each District, 1941 and 1942.

Boroughs and Urban Districts	1941			1942		
	Under 1 year of age		At all ages	Under 1 year of age		At all ages
	No.	Rate per 1,000 births	Recorded Rate per 1,000 living	No.	Rate per 1,000 births	Recorded Rate per 1,000 living
Acton (*Borough*)	31	48	12·0	65	72	11·4
Brentford and Chiswick (*Borough*)	30	51	14·3	53	67	13·5
Ealing (*Borough*)	96	49	10·9	131	48	10·3
Edmonton (*Borough*)	60	49	12·1	88	52	11·2
Enfield	53	38	10·3	83	47	10·0
Feltham	37	56	8·9	58	75	9·7
Finchley (*Borough*)	15	22	12·6	48	54	12·6
Friern Barnet	13	46	9·9	11	29	10·0
Harrow	151	56	9·1	103	32	9·3
Hayes and Harlington	60	57	8·4	62	52	7·3
Hendon (*Borough*)	81	57	11·2	70	34	9·8
Heston and Isleworth (*Borough*)...	72	61	10·3	101	72	10·1
Hornsey (*Borough*)	50	63	14·0	61	50	14·1
Potters Bar	7	32	8·4	6	24	10·0
Ruislip-Northwood	35	37	8·8	52	47	8·6
Southall (*Borough*)	49	69	10·1	47	57	8·8
Southgate (*Borough*)	25	41	11·9	34	37	10·7
Staines	41	69	9·9	39	59	10·2
Sunbury	17	49	10·1	14	33	8·6
Tottenham (*Borough*)	61	46	13·5	79	43	12·3
Twickenham (*Borough*)	86	71	13·0	81	53	11·6
Uxbridge	64	81	11·6	44	50	9·8
Wembley (*Borough*)	68	43	9·1	68	34	8·8
Willesden (*Borough*)	94	52	12·6	128	48	11·7
Wood Green (*Borough*)	16	34	13·4	25	36	12·8
Yiewsley and West Drayton ...	15	51	9·4	7	22	7·4
The County	1,327	52	11·1	1,558	47	10·5

The number of deaths due to different causes and the age groups in which these deaths occurred is stated in the following tables for the years 1941 and 1942 :—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF MIDDLESEX, 1941.

Causes of Death (1)	All Ages (2)	0— (3)	1— (4)	5— (5)	15— (6)	45— (7)	65— (8)
1. Typhoid and paratyphoid fevers	5	—	—	—	1	3	1
2. Cerebro-spinal fever	65	11	11	6	13	14	10
3. Scarlet fever	5	—	3	—	2	—	—
4. Whooping cough	80	37	38	5	—	—	—
5. Diphtheria	59	1	30	22	5	1	—
6. Tuberculosis of respiratory system	1,154	5	7	5	717	338	82
7. Other forms of tuberculosis ...	172	7	39	24	70	23	9
8. Syphilitic diseases	152	1	—	—	17	72	62
9. Influenza	266	9	3	1	28	76	149
10. Measles	38	11	25	—	2	—	—
11. Acute polio-myelitis and polio-encephalitis	3	—	1	—	2	—	—
12. Acute infective encephalitis...	24	—	1	—	8	7	8
13. Cancer of buccal cavity and œsophagus (M), uterus (F)...	343	—	—	—	17	187	139
14. Cancer of stomach and duodenum	527	—	—	—	31	220	276
15. Cancer of breast	369	—	—	—	55	182	132
16. Cancer of all other sites ...	1,990	—	9	7	181	813	980
17. Diabetes	181	—	—	2	21	58	100
18. Intra-cranial vascular lesions	1,701	1	—	—	37	389	1,274
19. Heart disease	4,810	—	—	7	236	1,057	3,510
20. Other diseases of circulatory system	632	1	—	1	26	103	501
21. Bronchitis	1,218	41	8	5	53	287	824
22. Pneumonia	1,332	240	63	13	124	300	592
23. Other respiratory diseases ...	268	5	2	2	36	94	129
24. Ulcer of stomach or duodenum	269	—	1	—	38	119	111
25. Diarrhœa (under two years)...	187	181	6	—	—	—	—
26. Appendicitis	97	—	5	11	27	24	30
27. Other digestive diseases ...	509	17	19	13	59	150	251
28. Nephritis	498	1	2	2	75	163	255
29. Puerperal and post-abortive sepsis	23	—	—	—	23	—	—
30. Other maternal causes ...	41	—	—	—	41	—	—
31. Premature birth	327	327	—	—	—	—	—
32. Congenital malformations, birth injury, and infantile diseases	397	347	10	4	19	14	3
33. Suicide...	180	—	—	—	58	86	36
34. Road traffic accidents ...	295	—	12	35	106	79	63
35. Other violent causes ...	920	27	28	49	335	230	251
36. All other causes	1,667	57	36	31	240	384	919
All causes	20,804	1,327	359	245	2,703	5,473	10,697

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF MIDDLESEX, 1942.

Causes of Death	All Ages	0—	1—	5—	15—	45—	65—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Typhoid and paratyphoid fevers	2	—	—	—	2	—	—
2. Cerebro-spinal fever	38	10	13	3	6	4	2
3. Scarlet fever	1	—	1	—	—	—	—
4. Whooping cough	38	23	13	2	—	—	—
5. Diphtheria	53	—	17	29	6	1	—
6. Tuberculosis of respiratory system	1,040	3	8	12	653	293	71
7. Other forms of tuberculosis	164	12	27	27	67	20	11
8. Syphilitic diseases	151	3	—	—	18	70	60
9. Influenza	133	5	3	—	15	32	78
10. Measles	18	5	11	2	—	—	—
11. Acute polio-myelitis and polio-encephalitis	4	—	—	3	—	1	—
12. Acute infective encephalitis	18	—	—	—	6	10	2
13. Cancer of buccal cavity and œsophagus (M), uterus (F)	355	—	—	1	22	176	156
14. Cancer of stomach and duodenum	561	—	—	—	28	223	310
15. Cancer of breast	417	—	—	—	54	220	143
16. Cancer of all other sites	2,184	1	4	10	170	863	1,136
17. Diabetes	141	—	1	6	18	24	92
18. Intra-cranial vascular lesions	1,912	5	—	1	41	499	1,366
19. Heart disease	4,718	—	2	7	262	959	3,488
20. Other diseases of circulatory system	802	—	1	1	29	173	598
21. Bronchitis	1,090	24	4	2	40	249	771
22. Pneumonia	1,115	194	35	11	100	259	516
23. Other respiratory diseases	244	7	6	3	44	95	89
24. Ulcer of stomach or duodenum	265	1	—	—	41	122	101
25. Diarrhœa (under two years)	264	258	6	—	—	—	—
26. Appendicitis	102	1	3	16	29	32	21
27. Other digestive diseases	520	21	15	9	67	164	244
28. Nephritis	452	2	1	10	64	141	234
29. Puerperal and post-abortive sepsis	23	—	—	—	23	—	—
30. Other maternal causes	49	—	—	—	48	1	—
31. Premature birth	411	411	—	—	—	—	—
32. Congenital malformations, birth injury, and infantile diseases	495	441	10	5	23	15	1
33. Suicide	124	—	—	—	37	49	38
34. Road traffic accidents	169	—	6	14	54	43	52
35. Other violent causes	511	40	34	33	102	84	218
36. All other causes	1,710	91	24	41	236	392	926
All causes	20,294	1,558	245	248	2,305	5,214	10,724

A progressive reduction in the total number of deaths and the death rates took place in 1941 and 1942. The marked decrease in the number of deaths due to " other violent causes " is associated with the diminution in and eventual cessation of enemy bombing raids on a large scale. Deaths due to tuberculosis, both respiratory and non-respiratory, were more numerous in 1941 than in the previous year, but this increase was more than cancelled by the decrease in 1942.

In 1941, a substantial decrease is noted in the number of deaths caused by bronchitis, pneumonia, and other respiratory diseases, and this decrease was continued in 1942. Deaths due to cerebro-spinal fever also dropped substantially in 1942. Following an improvement in 1941, diarrhœa under 2 years caused an increased number of deaths in the succeeding year. An increased number of deaths due to cancer is apparent in the tables.

Infantile Mortality.—During the last quarter of 1939 the Registrar-General decided that the large movement of population then taking place would render inaccurate statistics relating to infantile and maternal mortality rates if the normal practice was followed of transferring births to the mother's usual place of residence. Births were therefore assigned to the areas in which mothers were residing temporarily as a result of the war, and between 1939 and 1941 figures adjusted in this manner were provided by the Registrar-General for the calculation of the infantile and maternal mortality rates. In 1942, however, it was decided that these "secondary assignments" of births for the calculation of morbidity statistics were no longer of value and their issue by the Registrar-General was discontinued. Mortality rates, therefore, in 1942 are again calculated on the figures provided for the calculation of the birth rate.

The following table gives comparative information as to infantile deaths and death-rates in Middlesex, London, the Great Towns, and England and Wales.

Year	The County			London	Great Towns	England and Wales
	Births	Deaths under 1 year	Rate per 1,000 live births	Rate per 1,000 live births	Rate per 1,000 live births	Rate per 1,000 live births
1938	31,617	1,433	45	57	57	53
1939	*31,508	1,362	43	48	53	50
1940	*28,873	1,448	50	50	61	55
1941	*25,512	1,327	52	68	71	59
1942	33,150	1,558	47	60	59	49

* These are adjusted figures provided by the Registrar-General for the calculation of infantile and maternal mortality rates.

The infantile mortality rate for that area of the County in which the County Council is the maternity and child welfare authority was 55·8 per 1,000 live births for 1941 and 49·0 for 1942.

Although the infantile mortality rate for the County compares favourably with the rates quoted for other areas, there are no grounds for complacent satisfaction as long as the yearly death-roll of children under one year continues at its present level.

Maternal Mortality.—Pregnancy and childbirth provided causes for the death of 64 women during 1941 and 72 women in 1942.

In the following table maternal deaths are shown under the two categories into which they are classified by the Registrar General :—

Year	Puerperal sepsis		Other accidents and diseases of pregnancy and parturition		Total	
	Number of deaths	Rate per 1,000 live births	Number of deaths	Rate per 1,000 live births	Maternal deaths	Maternal mortality rate
1938	26	0·82	51	1·61	77	2·44
1939	22	0·70	71	2·25	93	2·95
1940	18	0·62	45	1·56	63	2·18
1941	23	0·90	41	1·61	64	2·51
1942	23	0·69	49	1·48	72	2·17

In 1941 the mortality rate showed an increase in both categories, the rise in the rate for puerperal sepsis being more noticeable following the low record noted in 1940.

A fall in the mortality rates took place in 1942 and the total of 72 maternal deaths corresponds to a total maternal mortality rate of 2·17 maternal deaths per 1,000 live births, which is a new low record for the County.

General Hospitals.

In the previous Report covering the years 1939 and 1940 an account was given of the transition of the Council's hospitals from a peace to a war footing. The additional temporary hospital accommodation provided by the Government was described, as were the means adopted to obtain the requisite medical and nursing staff. Particulars were also given of the damage to hospitals by enemy action. It will be convenient in the present Report to continue the account for the years 1941 and 1942 under many of the same headings.

Hospital Accommodation.

The second instalment of the Ministry of Health's hospital extensions, the building of which was begun in 1940, came into use in 1941. At Staines County Hospital a further ten ward huts, together with a pathological department, kitchen and staff dining rooms, were handed over in the Autumn of 1941. One of the ward huts was adapted to form a reception and outpatient unit, the need for which had been steadily growing, so that by the end of the period under review, this general hospital, which had had no existence before the war, was giving in its temporary hutments a complete hospital service with a number of well-organised special departments.

At Harefield Emergency Hospital a further eleven ward huts (each of 36 beds) were completed and handed over in August, 1941, together with a new kitchen, sewing room, boiler house, X-ray and physiotherapy departments and stores.

At Hillingdon County Hospital a further three wards, assistant medical officers' quarters and steward's stores were completed in October, 1941.

The temporary extensions at Clare Hall Emergency Hospital were completed in June, 1941, and comprised five ward huts, dispensary, laboratory, X-ray department, physiotherapy department, almoner's and other offices, staff dining and sitting room, patients' dining and sitting room, and military registrar's office. For some two years Clare Hall functioned as a combined sanatorium and emergency hospital, but in December, 1942, owing to the great national shortage of beds for tuberculosis, the Ministry of Health handed over to the County Council all the hutted accommodation they had erected so that the entire institution could be used for sanatorium purposes. This matter is referred to in greater detail in that part of the Report dealing with tuberculosis.

The new beds provided by the Ministry of Health at the various County establishments were primarily intended for the reception of casualties and for patients transferred from hospitals in London in accordance with the Sector Scheme. A proportion of the new beds, however, did provide some very essential additional accommodation for local needs, without which it is difficult to see how the County hospital service could have been maintained. As time went on, however, the need for further hospital accommodation for the civilian sick of the County became increasingly apparent. In particular, the need was felt for more beds for tuberculosis, for the chronic sick, and for maternity. In the case of tuberculosis, the shortage was largely brought about by the closure, or partial closure, of a number of voluntary sanatoria and chest hospitals at which Middlesex patients had formerly been maintained, either because they were situated in vulnerable positions on the south or east coast, or through lack of staff. This matter will be referred to again elsewhere.

Accommodation for the chronic sick had been short before the war, but it was intended to meet the position by the comprehensive hospital building programme which was about to be put into operation at the very time war broke out. The alterations brought about by the inception of the Emergency Hospital Scheme still further reduced the number of beds for chronic sick and in the meantime social changes which were taking place added still further to the need. The mobilisation of women for industry and the forces left many old and helpless people with insufficient home care and for many of these the later onset of illness or increasing infirmity compelled admission to hospital or institution which in normal times might have been avoided. For lack of other beds more and more patients of this type have had to be admitted to the acute wards of County hospitals, a wasteful procedure as simpler and more homely accommodation would have met the need more satisfactorily and have been more economical of expensive buildings, equipment and highly trained staff. As a means of lessening the shortage the County Council, since the outbreak of war, has taken large houses or other establishments and has adapted them for the reception of chronic sick patients. Thus in 1940 it acquired possession on lease of part of the Jewish Hospital at Tottenham (the rest of the building had been destroyed by enemy action) and used it for 24 cases. Similarly it took over the convalescent branch at Finchley of the National Hospital for the reception of 55 cases. In 1941 the Council leased (with option of purchase) two beautiful country houses at Pitsford, Northamptonshire—Pitsford House and Little Pitsford—adjoining properties, and staffed and equipped them to receive 154 chronic patients. It also acquired on lease Oxhey Grove, in the Harrow district, for 43 patients. The use of these scattered properties met the most acute need, but created many difficult administrative problems.

The demand for more maternity beds steadily increased during the years under review. After the cessation of mass air raiding of London in May, 1941, the Government's arrangements for the evacuation of expectant mothers to emergency maternity homes in the country became used less and less. The birth-rate rose and difficulties in the household consequent upon the direction of women into industry and the forces brought more and more women to seek admission to hospital for confinement, many of whom in normal times would have had their babies at home. By the end of 1942

more maternity beds were created at most of the Council's general hospitals by the overflowing of maternity cases (ante-natal and in some instances a proportion of post-natal cases) into the general wards. In 1942, however, the County Council was able to secure as a maternity unit Chiswick Hospital, a small but modern and well-built and equipped general hospital which provided some 50 much-needed maternity beds for the south-west of the County. It was decided to operate the unit as an annexe to that at the West Middlesex County Hospital and place it under the same administrative control with a joint obstetrical staff for the two units. The annexe at Chiswick Hospital was opened in January, 1943.

Medical Staff.

With the constant and growing demands of the armed forces the maintenance of an adequate medical staff in the Council's hospitals during the period under review became increasingly difficult. The Council was glad to welcome into its service a number of foreign doctors, mostly from Central European countries. In January, 1942, the Minister of Health accepted the recommendations of the Medical Personnel (Priority) Committee, before whom the County Medical Officer had given evidence, which aimed at reduction of the over-all strength of the medical staffs of civilian (other than mental) hospitals in the whole of the London area by 15 per cent. The result was that the establishment of the Middlesex County hospitals was reduced by 22 doctors at a time when, as almost always, the volume of work to be carried out was steadily increasing. About half the posts so abolished were those of house officers, and to fill some of the gaps, senior medical students were given appointments as house physicians and house surgeons. The effect of trying to maintain with reduced numbers a pre-war standard of medical work has imposed a severe strain upon the medical staff; and the health of some has been visibly affected in consequence. It is greatly to their credit that the quality of the medical work of the Council's hospitals has shown no signs of impairment and in some instances the time has even been made for the undertaking of original investigations.

The following senior appointments to the hospital staffs were made in 1941 and 1942.

North Middlesex County Hospital. Surgeon: H. W. Hall, M.B., B.S., F.R.C.S.

Redhill County Hospital. Senior Pathologist: J. L. Hamilton-Patterson, M.D. Obstetric Surgeon: R. M. Millen, M.D., M.R.C.O.G.

Central Middlesex County Hospital.—Deputy Medical Superintendent: F. Avery Jones, M.D., M.R.C.P. (in succession to T. G. I. James, M.Ch., F.R.C.S., at his own request); Surgeon: J. D. Fergusson, B.A., M.B., B.Chir., F.R.C.S.; Pathologist: J. H. Humphrey, B.A., M.B., B.Ch.

West Middlesex County Hospital. Physician: F. J. Jenner, M.R.C.P.; Senior Anæsthetists: A. H. L. Baker, B.A., L.M.S.S.A., D.A., Miss E. M. Chivers, M.B., Ch.B., D.A.

Hillingdon County Hospital. Surgeon: G. W. Duncan, M.B., B.S., F.R.C.S.; Senior Anæsthetist: H. J. V. Morton, M.A., M.B., B.Ch., D.A.

Staines County Hospital. Senior Physician: A. Barham Carter, M.D., M.R.C.P., D.P.M.; Senior Surgeon: N. M. Matheson, M.B., Ch.B., F.R.C.S., M.R.C.P.

Middlesex County Medical Society.—This society was founded in 1938 for the study of medical and scientific problems arising out of the County health services. In the early years of the war its activities were in abeyance, but it was revived in 1940 and thereafter has held periodical clinical meetings—about ten a year—in County hospitals or other centres in the County at which scientific papers are read, interesting cases demonstrated, and discussions held. The standard attained is very high. Membership, which is mainly confined to members of the medical staffs of the Council's general, special and mental hospitals and of the tuberculosis, welfare, school medical and administrative services, totals nearly two hundred. In 1942, the society extended its activities by setting up a Clinical Research Committee, under the chairmanship of Dr. Avery Jones, with the object of encouraging and assisting original investigations by individual members, but more particularly of co-ordinating group research between the County hospitals especially into certain aspects of the more common diseases.

It is interesting to record that the Surgical Section of the Royal Society of Medicine held its annual clinical demonstration in 1942 at Central Middlesex County Hospital, where a most excellent display of clinical cases and specimens was admirably presented by members of the Council's medical staff.

Nursing Staff.

Recruitment.—In 1941 the shortage of nursing staff was becoming very serious. On the one hand, additional beds were coming into use for which nurses had to be provided; on the other, certain of the County hospitals had suffered long sustained bombing and had thus come to be regarded as danger spots, a state of affairs not encouraging to parents seeking a nurses' training school at which to enter their daughters. At a time when need was rising, therefore, recruitment was falling, and some special measures were called for.

Opportunity was taken of the appearance of a Ministry of Information film "Hospital Nurse" to apply direct publicity methods to the problem. With the willing co-operation of the cinematograph industry, a skilfully prepared "tag" was shown at the conclusion of the film at every cinema in the County, pointing out the advantages of training in a County hospital. Every girl who was interested could obtain from the box office an attractively illustrated brochure dealing with the life

and training of a nurse in a County hospital, together with an application form containing full particulars of pay and conditions. The response to this appeal was very satisfactory.

The next approach was to the County secondary schools in an endeavour to interest Middlesex girls to a greater extent in their own County nursing service. Some years ago the County Council introduced a 48-hour working week for student nurses. As the girls live at hospital and so lose no time in travelling, they have a considerable amount of off-duty time. Nursing in a Middlesex County hospital, therefore, offers special attractions to Middlesex girls in that they are able to spend many of their off-duty hours in their own homes, and do not experience such a break in the family circle and severance from local interests and friends as hospital nursing so often brings about. With the kind co-operation of the Secretary of the Education Committee, a meeting of the heads of secondary schools was called. To them the problem was explained and a description given of the conditions of training in a County hospital and the prospects which a nursing career offers to girls. The response of the heads to an appeal for help was most gratifying and the following arrangements, agreed at the meeting, have thereupon been put into operation :—

Each County hospital has been linked with a group of secondary schools in the same area of the County. The hospital matron, or a senior member of her staff, from time to time visits each school in her group, by arrangement with the headmaster or headmistress, and gives a talk to senior girls or to their parents on nursing as a career. Occasional educational visits to the hospital are arranged, when parties of senior girls see for themselves something of the varied and interesting life of a hospital and the conditions under which student nurses live ; and are perhaps entertained to tea by a group of student nurses. In view of the widespread misconceptions which still exist in so many minds regarding the career of nursing, it seemed desirable to give girls in the County schools, at a time when they are thinking of a choice of a career, opportunity of judging for themselves. It is hoped that the friendly and informal liaison which has now been established between two of the County Council's great services—school and hospital—will be maintained and developed as time goes on. It has already aroused interest and attracted recruits ; and has been the means of furthering the establishment of pre-nursing courses.

Pre-nursing Courses.—One of the great difficulties in connection with entry to the nursing profession has been the bridging of the gap between leaving school and entering hospital. Large numbers of girls leave school at 16 or soon after, and by the time they are 18 years old, which is the usual minimum age of entry as a student nurse, most have already started some other kind of work, and do not wish to change. In Middlesex, part of the gap had already been bridged by the reduction of the age of entry to the Council's nursing schools to 17. This was done in 1939 as a war measure.

In accordance with the recommendation of the Athlone Committee, the General Nursing Council modified its regulations to permit the State Preliminary Examination to be taken in two parts ; the first part, if so desired, before entering hospital. The Middlesex County Council thereupon propounded a scheme, believed to be the first of its kind, whereby girls intending to become nurses could remain at school a further year and whilst still continuing their general education, could prepare for Part I of the State Preliminary Examination, attending classes in the professional subjects of anatomy, physiology and hygiene conducted by the sister tutors at their associated County hospital. The scheme received the approval of the Board of Education and of the General Nursing Council in 1942 and in September of that year courses were instituted at :—

North Middlesex County Hospital in association with :—
- Enfield County School.
- Southgate County School.

Redhill County Hospital in association with :—
- Harrow County School for Girls.
- Copthall County School, Mill Hill.
- Harrow Weald County School.
- Preston Manor County School, Wembley.

West Middlesex County Hospital in association with :—
- Twickenham County School.
- Thames Valley County School.

A girl, on completion of one of these courses, is quite free to take her nursing training in any hospital, municipal or voluntary, willing to accept her. No pressure whatever is brought upon her to enter a County hospital though it is thought that many will naturally tend to gravitate for training to the hospital with which their pre-nursing course has been associated. A girl entering a Middlesex County hospital, already having passed the first part of the State Preliminary Examination, has the length of her course reduced from four to three and a half years.

Training of Nurses.—In May, 1941, the County Council decided that the term " probationer " had outlived any usefulness it may have had and no longer described with any accuracy the position of a nurse in training. The term was therefore abandoned and that of " student nurse " substituted.

In July, 1941, the General Nursing Council gave approval to Chase Farm County Hospital and Staines County Hospital as complete training schools for nurses. They also approved as complete training schools Harefield Emergency Hospital and Clare Hall Emergency Hospital which previously

as sanatoria, had been affiliated training schools where the first two years' training was given. On Clare Hall ceasing to be a general hospital in October, 1942, and being used again entirely for the treatment of tuberculosis, it ceased to be recognised as a complete training school for nurses and reverted to its previous status. Nurses already undergoing general training at Clare Hall were transferred to other County hospitals to complete their training.

In October, 1942, the County Council instituted an interesting new policy in connection with the training of nurses in the care of the tuberculous. The cases of tuberculosis seen and nursed in general hospitals, particularly municipal hospitals, are often of an advanced and distressing nature, and are apt to give young student nurses a wrong impression of the nature of the disease in that they seldom see other than those cases which are running an unsuccessful course. The result of this is to cause all too often in the minds of nurses an undue fear of the disease and a prejudice against tuberculosis nursing. Moreover, it is frequently not easy in a general hospital to instruct a student in the hygienic measures necessary for the nurse's own safety and for the safety of members of the families of the patients whom she may be called upon to nurse later in her professional career. To remedy what is undoubtedly a serious deficiency in the education of the average nurse, the County Council decided to include in its syllabus of four years' general training for student nurses a period of three months' residential training at one of the Council's sanatoria, Harefield or Clare Hall. The transfer takes place some time in the student's second year, after she has passed the State Preliminary Examination.

So far as it is possible to report progress at this stage the scheme seems likely to prove extremely successful. Serious opposition or objection on the part of students has not been encountered and the arrangement is welcomed by the matrons of the sanatoria in that it gives them some help in their staffing difficulties. Combined with their nursing training at the sanatorium students receive a thorough course of instruction in the subject of tuberculosis both from the clinical and social aspects. Possibly this experiment may prove to be the forerunner of such a modification of the training curriculum as will in time ensure that every trained nurse is imbued with a knowledge of the principles of social medicine.

Civil Nursing Reserve—Nursing Auxiliaries.—In April, 1941, the Ministry of Health issued Circular 2340 which altered the arrangements for the training of nursing auxiliaries and substituted for a somewhat protracted period of part-time instruction in first aid, home nursing and a little hospital experience, an intensive whole time residential course of two weeks in hospital. These courses were organised by the Public Health Department in County and voluntary hospitals in Middlesex, wherever teaching facilities and residential accommodation were available. Before the end of 1942, thirty-two courses had been conducted for the instruction of 288 nursing auxiliaries.

Health of nurses.—At the beginning of the period under review the night bombing of London was at its height and nurses, like other members of the community, were sleeping in shelters under conditions of poor ventilation and overcrowding distinctly favourable to the spread of air-borne infections. Two practical preventive measures were introduced at the beginning of 1941 and will doubtless be continued and expanded as permanent County Council policy. These were (i) the routine Schick-testing and diphtheria immunisation of all existing nursing staff and new entrants and (ii) the annual medical re-examination of the nursing staff with an X-ray examination of the chest. By these means it is hoped not only to secure a routine check upon the general health of each nurse but also to bring under control two air-borne diseases to which nurses, by reason of their work, are rather more prone than women of the same age-group among the general population. These are diphtheria, which immunisation should virtually eliminate ; and pulmonary tuberculosis, for the early detection of which routine X-ray examinations of the chest provide the most accurate means.

General.—In August, 1942, Miss Beatrice Gebhard, for 17 years Matron of Central Middlesex County Hospital, retired from the service of the County Council. She had played no small part in the development of the hospital from an obscure poor law institution to one of the foremost general hospitals of this country. She was succeeded by Miss E. S. Laing, Matron of Hillingdon County Hospital, where Miss E. Hagland, Deputy Matron, was promoted to the matronship.

In November, 1942, the County Medical Officer was appointed by the Minister of Health to be a member of the General Nursing Council of England and Wales.

Hospital Almoners.

The Middlesex County Council made its first appointment of a hospital almoner in 1931, in the conviction that the social service rendered by trained almoners had an important part to play in the development of the County hospitals. By the end of 1942, the number of almoners in the employment of the County Council had increased to 26. Every general hospital had its almoner service, and almoners had also been appointed to the two sanatoria. The appointments at Harefield and Clare Hall were primarily occasioned by the need to render social service to patients admitted to the E.M.S. beds—some of them the victims of bombing. The assistance which almoners have been able to give to tuberculosis patients on the sanatorium side, however, has been so great, and the field of work which they have opened up is so wide, that there can be no doubt that they have a permanent and very considerable part to play in the Council's anti-tuberculosis measures.

The range and variety of an almoner's work in a municipal hospital are as yet insufficiently well known or generally appreciated. The opportunity is therefore being taken of presenting the

following paper, which has been jointly prepared by several of the chief almoners of the Middlesex County hospitals.

Almoners' Work in Middlesex County Council Hospitals.

"Medico-social work developed much later in municipal than in voluntary hospitals, partly because of the widely different service they formerly provided and partly because the motives for appointing almoners were connected with the reorganisation, in spirit and in fact, of the Poor Law and of public health. The principal of "deterrence" began to give way in the first two decades of the twentieth century, and Poor Law practice took account of need rather than desert. This change was immensely accelerated by the Local Government Act of 1929, which transferred Poor Law powers from the boards of guardians to County Councils, and provided for "appropriation" of rate-aided hospitals by the public health departments from the poor law departments. The change-over was delayed by legal complexities for some years even in the more progressive county councils, and a good many municipal hospitals and some municipal almoners are still controlled by public assistance departments. It is significant that those counties who "appropriated" earliest were also among the first to provide hospital social service by appointing trained almoners.

The improvement of medical treatment in municipal hospitals, and the efforts made to abolish the old Poor Law stigma, together brought about a more human and personal approach to the patients. Almoners replaced relieving officers in public health hospitals, except for lunacy cases, and although the public assistance machinery for assessment and collection of hospital payments remains in many counties and county boroughs, it usually functions apart from the hospital. This is not to imply any lack of close and friendly co-operation between the two departments.

As a rule, the public assistance officials welcome the appointment of almoners, and the latter in their turn are indebted for constant support and help from area officers and relieving officers, in both administrative and welfare work.

There is this big difference in the origins of voluntary and of municipal almoners' departments. The former were set up in the first place (beginning in 1895) to prevent abuse of hospitals by patients who could afford treatment elsewhere, and to avoid wastage of hospital treatment by patients too poor and too ignorant to carry out medical instructions. The latter (first appointment 1928) were to make a link between the public services and the patients *from within* the municipal hospitals, and to divorce those services from the spirit of pauperism. Municipal almoners were appointed neither to prevent abuse nor to get in more money to the hospital funds. They were, however, expected to be clerical officers more than social workers. Their duties with records and assessment were set out in detail, but their obligations in the sphere for which they had been trained were more often than not left to them to decide, under the vague heading "social welfare among patients" at the bottom of the list. More will be said on this point later.

The following account will not apply exactly to every almoner's department in Middlesex County Council hospitals. Duties and practice vary a good deal according to local requirements, as in voluntary hospitals.

(*a*) ADMINISTRATIVE.—(i) Interviews are held with in- and out-patients or their relatives for details of number in family, where working, number of dependants, income and outgoings, hospital contributory schemes, national health insurance, "settlement" qualifications, religion, date of birth, etc. The record made is a lengthy one, and primarily for an assessment basis. It also gives a valuable framework for social work by the almoner. The form is then passed to the Public Assistance area officer and collector, to be kept in the Public Assistance case paper department and combined with records proper. The almoner deals with out-patient assessments but not the collection of payments. Relatives liable to contribute towards the cost of treatment are not assessed for out-patients (except of course parents for dependent children), nor are court proceedings ordinarily taken against defaulters. This duty to take particulars of all patients, previously performed by relieving officers, occupies the bulk of the time spent by the almoner on administrative work.

(ii) *Co-operation with public assistance officials.*—The making and transmitting of records as described above is the chief working link. Innumerable smaller duties include work with internal auditors, special "settlement" enquiries, the obtaining of old age pension authority forms from patients who make over their pensions while in hospital, enquiries from relieving officers who assist the patient's family, and special reports to committees reviewing assessments in cases of hardship.

(iii) *Co-operation with the County Public Health Department and local Public Health and Education Authorities.*—Much of the work done by voluntary hospital almoners in this connection is regarded more under the heading of social welfare. If this help were not enlisted by the almoner, many patients would not avail themselves of it. In municipal hospitals the process is more automatic. Standard forms are completed for convalescences and surgical appliances, and are approved and countersigned by heads of responsible departments within the county service, the county funds bearing what proportion of cost is not recoverable from the patient and N.H.I. additional benefits. Similarly there are working agreements between the county and local health and education authorities for tonsillectomy cases, sunlight treatments, orthopædic clinics, health visitors' reports on home conditions of maternity patients, cleansing,

and other functions fulfilled by the sanitary departments—all of which apply equally to any and every appropriate case receiving treatment at a municipal hospital. The almoner's job here is to interpret the services to the patient, see that the necessary forms are filled up, and save the medical staff much work in answering miscellaneous enquiries from outside authorities needing special reports or from bewildered patients who " don't know how to go on."

(iv) *Emergency medical service.*—In most of the County's hospitals the almoner deals with records of air-raid casualties and service cases, arranges transfers to base hospitals, and keeps lists of patients wholly or partly chargeable to the Ministry of Health in other categories. This alone enormously increases the clerical work for which she is responsible in war-time.

(*b*) Social.—The social problems of patients in municipal and in voluntary hospitals are almost identical, except, for example, in maternity, chronic, and senile cases, who tend to be referred on to municipal institutions when they are no longer acceptable for curative treatment or when beds are not available elsewhere. For the thousands of acute cases also treated, however, the usual forms of help are given by the municipal almoner. Convalescences are arranged, surgical instruments supplied, gastric, diabetic, orthopædic, tuberculous, carcinoma, V.D. and road and work accident cases are followed up, watched and helped with extra nourishment, fares to attend, transport, clothing, temporary financial help at home, legal advice, domestic help, foster mothers or nursery hostels for children whose own mothers are in hospital, and so on. The help is enlisted from those state and voluntary agencies with whom the voluntary hospital almoner works, though with a greater bias on the state. Formerly the voluntary agencies were less willing to undertake municipal patients, partly from lack of funds, and partly from the idea that the state service should provide everything needed by the patient. Latterly, they have co-operated as generously as with voluntary hospital patients and the establishment of all hospitals on a more equal basis in the Emergency Medical Service has completed the process. Three classes of municipal patients, as already mentioned, present special problems to the almoner. They alone could fill her time if she were relieved of all her other duties and free to achieve really thorough social case work. They are :—

(i) *Maternity.*—The shortage of maternity beds all over the country, and the apparently increasing desire of mothers to be confined in hospital, mean that many more have to be refused booking and helped to arrange otherwise. Much time is spent in obtaining reports of home conditions, suggesting temporary adjustments of accommodation, and explaining alternatives, such as evacuation under the Government scheme. If a voluntary hospital ward is fully booked, the patient can at least be told to apply to her municipal hospital, and although straightforward cases are often refused there too, any case of definite or possible obstetric complication can be sure of acceptance. The biggest and most baffling social work opportunities in a municipal maternity ward are those given by the pregnant single woman and (now increasingly) the married woman having a child not her husband's. The variations on this theme are quite endless, and must be dealt with quite individually. Many of these patients either apply at the last minute or come in in labour with nothing arranged beforehand, or are delivered in their lodgings (in extreme cases even in air-raid shelters !) before being transferred to hospital. Some have concealed their pregnancy from the family or employer, others have come from distant parts of the country to avoid discovery. Their pressing needs are two-fold. On the practical side, somewhere to go on discharge, plans for the future of the babies, possibly new jobs when the latter are placed, etc., etc., and secondly the alleviation of mental and psychological distress both in the patient and her relatives. The married woman whose husband is separated or absent on active service needs particularly delicate handling, for instance, the difficulty of having her illegitimate baby adopted without her husband's consent, and she must face all the consequences this may imply, in loss of personal happiness, break up of family, and loss of subsistence allowances which may be her sole livelihood. Almoners are indebted to moral welfare workers and societies for the tremendous help they give, especially after the patient's discharge from hospital. They find hostel vacancies, foster-mothers, and jobs, provide baby-clothes, mediate with angry or distraught relatives, enlist legal help to obtain affiliation orders, and keep in touch with the patient, sometimes for years afterwards. The almoner's job is to refer patients to the workers and frequently to put the plans on foot before discharge from hospital takes place. Many similar problems and opportunities arise in the numerous abortion cases admitted to municipal hospitals.

(ii and iii) *Incurable and senile.*—The medical needs of these patients are simpler than their social and personal ones, but nursing care and attention, without all sorts of other help, does not fill the bill. Because of the shortage of (*a*) chronic beds in hospitals, and (*b*) of special homes apart from hospitals, there is a constant struggle against odds to give them a square deal. Young or middle-aged chronic patients with disseminated sclerosis, traumatic paralysis, tuberculosis, cerebral tumours, etc., drift in from voluntary hospitals, or from relatives who will not or cannot look after them, to face the bleakest futures in a crowded chronic ward. They are often aware of being useless, medically uninteresting, and hopelessly dependent on the State. Because the almoner has more

> urgent problems to solve, she simply has not the time to deal faithfully by them. She can offer only the palliative of a friendly word now and then, a book to read or occasional handwork to pass the time. If the bed is needed, she then has the thankless task of trying to persuade unwilling relatives to receive the patient, or of finding cheap nursing homes which are sometimes even less satisfactory. More can be and is done for elderly or senile patients. Their pension worries are sorted, assessments interpreted, pocket money provided where possible, when the non-contributory pensions have expired after thirteen weeks in a rate-aided hospital, and rent allowances arranged. Difficulties often arise over the question of giving up the treasured home of the solitary old patient who will not again be fit to live alone. Relatives, if any, are consulted, the doctor asked to explain to the patient, and in some cases the relieving officer may be appointed, at the patient's request, to dispose of the beloved sticks of furniture. Much time and much soothing are needed to reconcile many old people to this final loss of liberty and privacy. To numbers of their generation it still implies a surrender to that dreaded bogey " the workhouse."

Added to these hospital social problems and others that have been barely touched on, are those of war-time patients, whether air-raid casualties, service sick and casualties, transferred war-workers, transferred civilian sick, civilian evacuees, or refugees from other countries. Besides struggling to understand and apply the innumerable circulars from central government departments on points of administration and finance, the almoner co-operates with state and voluntary agencies for tracing lost relatives ; advising on claims for injury allowances and damage to property, and loss of personal belongings ; billeting ; obtaining special food allowances for priority classes ; helping service men's families ; supplying artificial limbs ; raising fares for relatives to visit patients in base hospitals, and many other activities. Most promising and significant of all is the government's acceptance of the value, in theory and in practice, of the rehabilitation of physically disabled people. Almoners have a great responsibility for extending the effects of the interim scheme, lately put forward by the Ministry of Labour, to meet much more than just the needs of industry in war time. This and other topical schemes will demand for post-war social development far more thought and space than can be given here.

In outlining war-time hospital social work it should be stressed that the Emergency Medical Service has made identical the problems and opportunities of both municipal and voluntary hospital almoners.

To sum up, the general principle of the municipal almoner at present is that her department should be the link *between the public health services and the individual in his personal environment.*

While carrying out her work as a member of a hospital staff, the almoner also interprets the provisions of the public services to the patient, and conversely presents his needs to the authorities responsible for him so that those services may be developed accordingly."

Damage to Hospitals by Enemy Action.

Air-raiding of the capital on a large scale began in September, 1940, and persisted until 21st May, 1941, on which date a particularly heavy load of high explosive and incendiary bombs was dropped on Central London. Thereafter the intensity decreased and such attacks as were experienced were sporadic and on a much lighter scale. In the previous Report for the years 1939 and 1940, an account was given of the damage to County hospitals up to the close of 1940. Although, as already stated, bombing on a heavy scale went on for some months into 1941, Middlesex was fortunate in that no further major damage to hospitals was sustained. It is desirable, however, to record briefly the means by which certain medical services were improvised and later restored in those County hospitals which were damaged in the winter of 1940 :—

Hillingdon County Hospital.—" A " block, which had contained the maternity department, was so severely damaged that it had to be completely demolished and the site cleared. As an immediate emergency measure one of the Ministry of Health's hutted wards adjoining the theatre was taken over as a lying-in ward and the sterilizing room of the theatre was used for deliveries. As soon as possible a new labour room was built between annexe wards 3 and 4—part of the temporary wing begun by the County Council before the war and opened in 1940—and this labour room and Ward 4 then became the new maternity department of 27 beds, part of the end of the ward being partitioned off and fitted with infants' baths to form a nursery. The unit suffered, however, from a shortage of separation cubicles and soon proved to be too small for the growing needs of the area served by the hospital. In the summer of 1942 some relief was given by taking over as lying-in wards a large house " The Furze," in the hospital grounds, which had previously been used as an annexe to the nurses home. This arrangement provided a further 26 maternity beds, grouped in small wards, bringing the total accommodation to 53.

West Middlesex County Hospital.—At this hospital also the chief problem was to restore maternity accommodation. Queen Mary Maternity Wing was put out of action. By temporary works it was possible to bring about half the building back into commission early in 1941—that part, moreover, in which the theatre and labour rooms were situated. By appropriating for lying-in wards some of the general wards of the hospital a workable maternity unit of some 40 beds was restored. The rest of Queen Mary Maternity Wing was so badly damaged as to need complete reconstruction. Shortage

of labour and materials caused much delay, but eventually the work was done and the building returned to full use in February, 1943.

Among the buildings destroyed was the ante-natal clinic. Until another building could be adapted for the purpose, the Borough Council of Heston and Isleworth was most helpful and kind by putting at the disposal of the obstetrical staff of the hospital a part of their welfare centre at Busch House, adjoining the hospital, for the ante-natal examination of women booked for admission.

Central Middlesex County Hospital.—This hospital was so severely damaged by a succession of raids that finally when its gas and water supplies failed it had to be closed at the end of September 1940, except for a small casualty unit. Repairs were put in hand and two weeks later it was partially reopened. A good deal of major reconstruction work had to be done to some of the severely damaged ward-blocks and it was not until January, 1942, that all the wards were back in use.

Hospital Administration.

In 1942 a small sub-committee of the Public Health Committee was set up to consider various matters affecting the development of the Council's health services. One of the first matters to which it gave attention was a report upon the future administration of the Council's hospitals. As this has given rise to a good deal of discussion both within the County and elsewhere, the report is reproduced in full. It was presented to the County Council in 1943, when the principles contained in its recommendations were adopted, two or three matters of detail only being reserved for further consideration.

"Report of the County Medical Officer upon the Future Administration of Middlesex County Hospitals."

Introduction.

"1. In connection with the widespread discussions which have been taking place during the past two or three years with reference to the planning of a national hospital service, a good deal of criticism has appeared in the medical press directed against the system of administration which obtains in municipal hospitals. Much of the criticism is clearly ill-informed and inapplicable to the Middlesex County hospital service, but the point has been made over and over again that a system of internal hospital administration, in which one individual, viz., the medical superintendent, is placed in a position of autocratic control in relation to the rest of the medical staff, cannot be considered satisfactory. It is argued that the most eminent or promising men and women in the medical profession will not enter or remain in the municipal hospital service where the system of administration is such that initiative and enterprise are bound to be stifled and members of the medical staff, no matter how able they may be, have no voice whatever in the direction of the policy of the hospital in which their working lives are spent.

2. It should here be interpolated that, despite the above arguments, it is common knowledge that the Middlesex County Council has succeeded in enlisting and retaining in its service a number of medical men of high professional attainments ; and their keenness and enthusiasm and the consistently high standard of the work they turn out are evidence that it is unlikely there is anything seriously amiss with existing conditions. This, however, is probably due to the active interest taken by Committee members in the Council's hospitals and to the Council's good fortune in the possession of its present medical superintendents, who on the whole do consult with the senior members of their medical staffs and take them into their confidence. It must be admitted, however, that under the existing system a medical superintendent *could* adopt an autocratic and dictatorial attitude to members of his staff who, whilst perhaps resentful, would find no ready means of redress until the position became intolerable. Indeed, it will be within the knowledge of some members of the Committee that such a state of affairs has actually arisen—happily extremely rarely—in the past, with most unfortunate repercussions upon the service.

3. In view of the above considerations, it seemed desirable that the whole question of the internal administration of the Council's hospitals should be reviewed and any necessary changes instituted, so that in any general post-war reconstruction schemes Middlesex may continue to occupy its position in the forefront of the hospital services of this country. A further need for a review arose from the fact, to which attention had been drawn by certain members of the Council, that too much of the time of medical superintendents was being taken up by their administrative duties, thus leading to waste of clinical skill.

4. As most of the criticisms of the municipal hospital system had been made by doctors on the staffs of voluntary hospitals, it might be convenient at this stage briefly to indicate some of the ways in which internal administration in voluntary hospitals differs from that in municipal hospitals.

Voluntary Hospital Administration.

5. In a few isolated instances, voluntary hospitals have medical superintendents, but almost invariably the administrative head of a voluntary hospital is a lay secretary or house governor. This officer has no counterpart in municipal hospitals, but he usually acts as clerk to the governing body, undertakes some of the duties belonging to the steward of a municipal hospital and is also usually responsible for the organisation of appeals to the public for financial aid. He carries out the day to

day administration of the hospital, but as he is without medical knowledge he is very largely in the hands of the medical staff committee, which is composed of the members of the honorary medical staff of the hospital. This committee, subject only to the overriding control of the governing body, largely decides the policy of the hospital and makes all medical appointments to the staff. The medical committee occupies an extremely strong position ; its members are usually men of standing in the profession, their services as physicians and surgeons to the hospital are given without payment, and their position is further strengthened in that the nominal head of the hospital, the lay administrator, is without medical knowledge.

Municipal Hospital Administration.

6. As the Committee is aware, the head of the municipal hospital is the Medical Superintendent. His position and title are derived from the Poor Law and are referred to in the Public Assistance Order, 1930. The prominence of his present position in municipal medicine is doubtless due to the fact that usually in the past the medical superintendent of a Poor Law hospital was not only the administrative head of the hospital, but also the best clinician—sometimes the only senior clinician—on the staff. On account of the general low level of salaries paid, his assistants were professionally much junior to him, so that he naturally assumed the lead not only in administrative, but also in clinical matters. In some parts of the country the above is still a reasonably true picture, but this is far from being the case in Middlesex. The Middlesex County Council was a municipal pioneer in recognising that the essence of a first-class hospital service does not lie in buildings and equipment—necessary as these things are—but in the brains and hands of its medical staff. The Council's policy has been based on this belief and as a result there has been built up at each hospital a medical and surgical staff of consultant status, the senior members of which are in no way professionally inferior to the medical superintendents. The excellence of the service provided is the strongest argument for the continuance and expansion of this policy.

7. It is clear that the Council's method of hospital staffing has outgrown the old Poor Law conception of a medical staff subservient to a medical superintendent in a position to exercise dictatorial powers. The problem is to devise a system combining what is best in both voluntary and municipal forms of administration. The advantage of the voluntary hospital system is that the hospital benefits by having the advice in administrative matters of a number of men of proved ability, who are directly concerned in the daily work of the hospital. By giving these men an administrative part to play, it also inspires in them a lively interest and a desire to promote the welfare of the hospital. Its disadvantages, however, are grave and have long been manifest in voluntary hospitals. A lay secretary cannot deal as effectively as a medical man either with the medical staff or with the committee of management. In both cases, his lack of specialist and professional knowledge places him at a disadvantage. Moreover, this lack of knowledge tends in certain individuals to lead to an inferiority complex which is overcompensated by the development of an aggressive and unreasonable attitude. Day to day decisions, many of which involve medical considerations, have to be made by a layman, sometimes with very unhappy consequences. The formation of a medical committee with executive powers unco-ordinated by a professional head is also unsatisfactory. Such a constitution tends to result in compromise and lobbying ; moreover, there is a lack of any real executive head to whom reference can be made on specific points of hospital administration (particularly matters of co-ordination involving several departments of the hospital) and upon whom individual reponsibility can be placed. I should here perhaps remind the Committee of the far more stringent obligations to the public which are placed upon municipal hospitals as compared with voluntary hospitals.

8. For the above reasons, I am strongly of opinion that in each hospital there should be one person responsible as an administrative head for the co-ordination of the different departments and for the efficiency of the hospital as a whole, and that this person should be a doctor. In this opinion I am supported not only by all the Council's medical superintendents, but by all the senior clinicians on the Council's staff, who are unanimously opposed to the principle of control by a lay superintendent.

The Rôle of the Medical Superintendent.

9. The Medical Superintendent of the hospital should be a medical man of high clinical skill and attainments, together with administrative experience and ability to handle staff. He should not be expected to devote his whole time to administrative duties, but a considerable proportion of it should be spent in clinical work, possibly in some special branch of medicine or surgery in which he is particularly interested, in order that he may, during his tenure of office, continue to keep himself in touch with clinical problems and retain the respect of his staff for his clinical ability. This, to my mind, is essential.

10. His primary rôle should be that of co-ordinator of the medical services and various hospital departments. He should also be the executive officer to whom the lay governing hospital committee can look for the carrying out of its instructions.

11. In the exercise of his legitimate functions as the head of the hospital, the medical superintendent must accept responsibility for day to day administration, must allocate beds and apportion duties among his medical staff and make decisions and give directions which he has a right to expect

his staff loyally to carry out. The safeguards for the staff will be considered in the paragraphs headed "Medical Staff Committees."

12. In view of the Poor Law association with the name of Medical Superintendent, a change of title to Medical Co-ordinator or Medical Director has been suggested. The former, to my mind, is clumsy and if a change is thought desirable the title Medical Director is reasonably apposite.

13. The burden of administrative work on a medical superintendent could be considerably reduced by the appointment of a highly qualified man or woman, with a university degree, and secretarial and administrative training, as medical superintendent's secretary. He would be on the medical superintendent's staff, under his supervision, and would deal with all non-medical matters of administration at present handled by the medical superintendent. This individual, in addition to other duties, would organise the medical superintendent's office and the system of hospital record keeping.

Medical Staff Committees.

14. At several of the Council's hospitals, medical staff committees have already been set up. These act as an advisory and consultative body to the medical superintendent and bring members of the senior staff into touch with the administration of the hospital. It is recommended that this principle should be extended and that at all the Council's hospitals medical staff committees should be set up and should be recognised by the County Council as an integral part of the administrative machinery of the County hospital system. The County Council would expect the medical superintendent to consult the medical staff committee, *inter alia*, on matters affecting the development of the hospital, changes of policy and appointments of medical staff. The medical superintendent would attend meetings of the medical staff committee, but not necessarily in the capacity of chairman.

15. The medical staff committee should consist of all the full-time *established* medical officers, *i.e.*, the entire senior medical staff, and to them might be added a small representation of the more junior ranks; or these officers and also visiting specialists might be invited to attend on occasions when matters which particularly affected them were to be discussed. It might be wise to allow a margin of latitude in framing the constitution of medical staff committees, as the County hospitals are not precisely similar. Each has its own individuality and its own particular problems. Representatives of the medical staff committee should have the right regularly to attend meetings of the committee of management of the hospital, in order to state the views of the medical staff, and, if they thought it necessary, after consultation with the medical superintendent, submit matters to the committee of management for consideration. The medical staff committee should be given an opportunity of seeing the agenda and all relevant reports to the committee of management before the meeting of the latter.

16. All members of the medical staff committee should be made aware of the difficulties of administrative problems and should be expected to accept their share in solving them and to shoulder their responsibility in running the different departments. Experience of administration would be given by this medical committee and each member of the senior staff should be encouraged to accept the appointment of deputy medical superintendent in rotation, for a term of office of, say, one year. In this manner, knowledge would be obtained of those members of the staff most suitable for the position of medical superintendent in the Council's service, when such a post became vacant. It is further recommended that the appointment of house officers and junior assistant medical officers might be a function of the medical committee.

Appointments Advisory Committee.

17. A further suggestion is that an Appointments Advisory Committee should be set up, consisting of all the Grade I officers in the Council's service, who, with the medical superintendent of the hospital concerned and the County Medical Officer, would advise the Committee in the selection of candidates for interview in connection with the making of senior medical ("graded") appointments.

Salaries.

18. The above recommendations, if adopted, should strengthen the legitimate position of the medical superintendent by securing for him the support of his staff. They would also relieve him of many irksome non-medical administrative duties. They would give to the senior members of the medical staff an effective voice in the framing and direction of hospital policy and go far to remove any reluctance on the part of clinicians of the highest standing to make a career in the service of the Middlesex County Council. One other thing is necessary to achieve this end. The salaries of senior clinicians should be such as to provide a satisfying clinical career, without the necessity of a man having to transfer to an administrative post in order to obtain promotion. In this connection there should be no marked discrepancy between the salary of the medical superintendent and that of his senior clinicians, the medical superintendent receiving a small addition above the salary of a senior clinician in recognition of his administrative responsibilities. This end might be achieved by the institution of an additional senior clinical grade (say, £1,500–£1,800 or £2,000 on pre-war values), appointment to which should be limited to men and women of very high distinction.

19. If the Committee think well of this proposal, I would suggest that the present method of remunerating medical superintendents (and indeed any hospital officers) on the basis of the approved

number of beds, is not altogether satisfactory. The Council's five major general hospitals, North Middlesex, Central Middlesex, West Middlesex, Hillingdon and Redhill County Hospitals, have all greatly developed since the Council's grading scheme was made in 1931. They are all now hospitals of some renown, each with a great annual turnover of patients, each with well-organised and expanding special departments for both in- and out-patients. I am of opinion that there is no material difference in the weight of responsibility resting upon the five medical superintendents and I think the Council might consider remunerating them equally on a scale of, say, £1,700–£2,000 or £2,200 *without emoluments*. The Committee may consider that with the vast changes that have taken place in the staffing of County hospitals, there is no longer any need for the medical superintendent of a general hospital to be obliged to live on the premises.

20. The position at the Staines and Chase Farm County Hospitals is rather different; they are in a much less advanced state of development and their future is a little uncertain. I think possibly the medical superintendents of these two establishments might be left untouched for the present. I should like to defer reporting upon the position of the sanatoria until their condition has become rather more crystallised. I should like to report also, a little later, on methods of staffing the County hospitals.

Consultation with the Staff.

21. Before attempting to draft this report and with the main headings only in mind, I called a meeting of my colleagues, the medical superintendents of the County Hospitals. They agreed that some reorganisation was most desirable and put forward a number of recommendations which are embodied in this report. They further made the suggestion, which I was grateful to adopt, that I should also consult the senior clinicians in the Council's hospital service. I therefore convened a meeting of two or three representatives of the senior clinical staff from each County hospital and discussed the whole matter freely with them. They also considered that some reform was most desirable and were generally in agreement with the views of the medical superintendents which had been circulated before their meeting, but added some further recommendations.

22. As a result of these consultations, the Committee may be assured that if they adopt any or all of the recommendations contained therein, they will have the full co-operation and support of the entire senior medical staffs of the Council's hospitals.

Summary of Recommendations.

(*a*) The head of the hospital should be a doctor of high clinical attainments who should remain in active clinical practice of his profession and who might be given the title of "Medical Director."

(*b*) His medical administrative functions should be largely those of a co-ordinator of the medical services and various hospital departments.

(*c*) He should be relieved of many non-medical administrative duties at present undertaken by him, by the appointment to his staff of a highly qualified lay hospital secretary.

(*d*) At each hospital a medical staff committee should be set up and recognised by the County Council as an integral part of the administrative machinery of the hospital.

(*e*) The medical staff committee should consist of the medical superintendent, the whole-time *established* clinicians, with some small representation of the junior medical staff. It should have the right to send a representative regularly to attend the meetings of the committee of management to express the views of the staff.

(*f*) The County Council would expect the medical superintendent to consult the medical staff committee, *inter alia*, on matters affecting the development of the hospital, changes of policy and appointments of medical staff. The County Council might also delegate to the medical staff committee the appointment of house officers and junior assistant medical officers (six months appointments).

(*g*) The above recommendations might be put in operation at an early date, without waiting for the end of the war, and, after a period of trial, publicity should be given in medical journals and elsewhere to the change of policy.

(*h*) The conditions and salaries of senior clinicians should be such as to provide a satisfying career without a man having to transfer to an administrative post to obtain promotion. A new salary scale for senior clinicians of high distinction is suggested, with the proposal that medical superintendents should receive £200 a year above this.

(*i*) The remuneration of medical superintendents of the five major general hospitals should be the same and should not depend, as at present, upon the authorised number of beds.

(*j*) Consideration should be given to the setting up of an Appointments Advisory Committee to advise the Council on the selection of candidates for senior medical appointments."

H. M. C. Macaulay,
County Medical Officer of Health.

10, Great George Street,
Westminster, S.W.1.
6*th November*, 1942.

Work of the General Hospitals.

In the first half of 1941 considerable numbers of air-raid casualties were treated in Middlesex County hospitals. With the discontinuance of night raiding on a heavy scale after May, 1941, the hospitals were able to an increasing degree to carry out their normal function of tending the civilian sick. In this work, most essential to the war effort, they were more and more handicapped as time went on by the growing shortage of staff—not only medical and nursing staff, to which reference already has been made, but also of technical, clerical and more particularly manual and domestic staff. From the early days of the war every effort was made to replace men workers by women and before long women porters, gate-keepers, ambulance drivers and attendants, made their appearance in hospitals and were recruited in rapidly increasing numbers. The call-up of engineers and stokers, however, where this process of substitution could not be followed, gave rise to much anxiety and on several occasions complete breakdown of the hospital engineering services was only narrowly averted. The call-up of trained hospital women clerks and the increasing shortage of domestic workers has been acting as a brake, slowing down the entire hospital machine and impairing its efficiency. The excessive drain of essential workers from hospitals is bringing about the operation of the law of diminishing returns and is giving cause for feeling that more might have been achieved in the national effort if a little less had been attempted.

The statistical tables dealing with the details of work of the County hospitals which formerly were included, have been omitted from this Report. Shortage of clerical staff at the hospitals would have made their compilation very difficult and in any event totals of admissions, discharges, deaths, operations performed, etc., unless accompanied by detailed descriptions and annotations of much greater length than present circumstances permit, give little idea of the volume and no idea of the quality of a hospital's work. Suffice it to state that the total number of admissions to all the County general hospitals during 1942 was in the neighbourhood of 75,000.

The work of the psychiatric outpatient clinics established at some of the County general hospitals has continued and developed during the period under review. These clinics, which are conducted by senior members of the medical staffs of the County mental hospitals were established at the North, Central and West Middlesex County Hospitals in 1935. A fourth psychiatric clinic, attended by the staff of Shenley Hospital, was opened at Redhill County Hospital in January, 1942. Another interesting development in the field of psychological medicine is the introduction of electrical shock therapy at West Middlesex County Hospital in 1942. Attention has been drawn to these matters as it is considered that the importance of the integration of the mental and physical health services cannot be overstressed.

Inspection and Supervision of Food.

The Acts and Regulations governing the supervision of food supplies which are administered by the County Council deal with (*a*) certain powers and duties connected with the production of milk, and (*b*) adulteration of food.

Milk Production.

For many years past the Lister Institute of Preventive Medicine has examined for tubercle bacilli samples of milk taken by inspectors of the Public Control department under the County Council's arrangements.

The following table shows the results which have been obtained since the year 1928 :—

Year	Number of samples for which a definite result was obtained	Number containing living tubercle bacilli	Percentage oi tubercle-infected milk
1928	228	23	10·1
1929	277	21	7·6
1930	272	22	8·1
1931	256	14	5·5
1932	266	31	11·6
1933	287	25	8·7
1934	289	17	5·9
1935	282	21	7·4
1936	292	20	6·8
1937	282	16	5·7
1938	278	16	5·7
1939	193	10	5·1
1940	267	19	7·1
1941	285	16	5·6
1942 (Jan.–June)	136	6	4·4

Of the 16 infected samples found in 1941, 6 were reported as produced in Middlesex, and 10 in other counties. The diseased animals were traced on 8 of the farms concerned (2 in Middlesex and 6 in other counties). As a result, 11 animals were slaughtered.

In 1942, the 6 infected samples comprised 2 produced in Middlesex and 4 in other counties. At 5 farms (2 in Middlesex and 3 in other counties) diseased animals were found and 5 were slaughtered.

The Lister Institute was unable to continue the examination of samples after June, 1942, and in consequence there was a drop in the number of examinations during 1942. Arrangements have now been completed for similar examinations to be carried out in the pathological laboratory of Harefield County Sanatorium, which will in future deal with approximately the same number as were handled by the Lister Institute.

The routine veterinary inspection of Middlesex herds is carried out by officials of the Ministry of Agriculture. The Divisional Inspector of the Ministry furnishes the County Council with information as to the results of veterinary inspections and tuberculin tests of Middlesex herds. The figures for the past four years are set out in the table below :—

Year	Number of clinical examination of bovine animals.	Number found in which tuberculosis was suspected.	Number slaughtered.	Number in which diagnosis was not confirmed.
1939	6,023	48	39	9
1940	7,000	28	22	6
1941	9,307	14	11	3
1942	8,582	21	18	3

It is perhaps worthy of note that when the County Council employed its own whole-time veterinary inspector, every herd was inspected once a quarter. In 1937, the last complete year before the Ministry of Agriculture assumed responsibility for the service, some 17,000 clinical examinations were carried out, leading to the discovery of 76 bovines suffering from tuberculosis.

Milk (Special Designations) Orders, 1936 and 1938.—Under the terms of these Orders, the County Council is the authority for the granting of licences to the producers of tuberculin tested and accredited milk. Every farm in respect of which an application for a licence to produce tuberculin tested or accredited milk is received, is visited by Dr. Perkins, and by the Instructor in Dairying employed by the Education Committee. The condition of the premises and the methods employed on the farm are fully investigated. A licence is granted only if the County Council, from the reports of its officers and of an approved veterinary surgeon, is satisfied with the conditions obtaining. Farms under licence are periodically visited and samples of milk regularly subjected to bio-chemical and bacteriological examination to ensure that satisfactory methods of milk production are being maintained.

In 1941 there were in Middlesex four herds licensed for the production of tuberculin tested milk ; and at the close of the year 34 dairymen in the County had been granted licences to produce accredited milk. In 1942 there were five farmers holding T.T. licences, and at the end of the year 36 accredited licences were in force. The herds belonging to four of the holders of T.T. licences were also attested under the scheme of the Ministry of Agriculture.

Adulteration.

The Acts and regulations dealing with adulteration of foods and drugs are administered by the Public Control department of the County Council. I am indebted to Mr. R. A. Robinson, Barrister-at-Law, Chief Officer of that department, for information regarding this branch of work.

During 1941, 1,355 samples, of which 86 were found to be adulterated or not up to standard, were submitted for examination by the County Analyst, and 1,433 samples, of which 52 failed to comply with the requirements, were submitted in 1942.

In addition to the above, 2,152 samples in 1941, and 1,764 in 1942, were examined by officers of the Public Control department.

No action was taken during either year under the Public Health (Dried Milk) Regulations, 1923 and 1927, or the Public Health (Condensed Milk) Regulations, 1923 and 1927.

Civil Defence Casualty Services.

Air raids upon the London area continued by night on a heavy scale until May, 1941. Thereafter for the rest of the period under review they almost ceased, except for occasional sporadic light attacks. The civil defence casualty service, which was tested in the autumn and winter raids of 1940, functioned efficiently, and dealt with all the calls made upon it in the early months of 1941. The account which follows, which for the most part covers a non-operational period, deals mainly with the steps taken to reduce the strength of the service to meet the growing demand for man-power, and with the means adopted to increase the efficiency of the reduced staff to the highest level.

First-Aid Post Service.

The continuation of air raids during the early months of 1941 did not overtask the first-aid post service as a whole. The incidence of casualties in boroughs and districts varied in accordance with the frequency and nature of the attacks and the nature of the targets in the area of individual local authorities. The number of casualties treated at first-aid posts, therefore, showed wide variation, but even in the most heavily raided districts the service was adequate; in fact, as further experience of raids was obtained, it became apparent that the number of permanently staffed first-aid posts in the County was in excess of requirements.

At the same time, however, the increasing drift of auxiliary nurses from the first-aid post service into other employment showed signs of bringing about staffing difficulties in certain boroughs and districts, especially those in which part-time volunteers were few in number, until the issue of Ministry of Health Circular 2344 in April, applying the Civil Defence (Employment and Offences) (No. 2) Order to women in the first-aid post and ambulance services.

The role played by mobile first-aid posts—" mobile units "—over the County as a whole fell far short of expectations, as the occasions on which complete units were required to proceed to reinforce static first-aid posts or to treat casualties at the scene of bombing were remarkably few. A reduction in the number of heavy mobile units was therefore begun during 1941.

It was nevertheless found essential to have medical and nursing assistance at the scene of bombing incidents, and from the existing large mobile units were formed " incident medical parties," each consisting of a medical officer and a small number of nursing staff, with a motor car for transport. These squads did good work in the treatment and disposal of casualties; their presence at incidents had a reassuring effect on injured persons and their relatives, and they removed from stretcher party members certain responsibilities which had hitherto been borne by them.

In the light of experience under air-raid conditions and having regard to the man-power position generally, consideration was given in the later months of 1941 to a reduction in the whole-time staff of the first-aid post service, and in January, 1942, the Regional Commissioners for the London Civil Defence Region called upon the County Council as scheme-making authority to effect an overall reduction of approximately 30 per cent. in the number of whole-time paid first-aid post workers.

Following on meetings attended by representatives of all local authorities in Group 6, proposals were submitted to the Regional Commissioners, and after discussion on points of detail a revised establishment was agreed upon. The extent of the reduction in each borough or district was determined by local conditions and vulnerability, but in the main the loss of strength was largely offset by increasing the mobility and interchangeability of the remaining staffs. Measures taken to bring about the required reduction included the following :—

(*a*) A few first-aid posts were abolished.

(*b*) A number of first-aid posts were put on a " care and maintenance " basis and the paid workers were withdrawn. Arrangements were made for opening and staffing these posts in emergency by local part-time volunteers and/or personnel despatched from other aid posts or mobile units.

(*c*) A reduction was effected in the number of heavy mobile first-aid posts (converted motor coaches and commercial vans), and where necessary these were replaced by " light units " (light motor cars) carrying a much smaller staff and less equipment.

The Regional Commissioners fixed the maximum number of staff which would provide the necessary operational strength at first-aid posts and mobile units which had been retained, and arrangements were made for the release of redundant members. Efforts were made to direct those released into appropriate employment where their training as auxiliary nurses would be used to the best advantage, and they were encouraged to transfer to general nursing (student nurses), the Civil Nursing Reserve, the ambulance service or war-time nurseries.

A further reduction in the establishment of paid staff by again approximately 30 per cent. was brought about in March, 1942, by the introduction of the 24-hour shift system and a 72-hour working week.

As part of the revision of the first-aid post service consideration was given to the function of first-aid posts located in hospitals. First-aid posts were originally located in hospitals to intercept and treat the anticipated large numbers of walking wounded who might converge on hospitals and create a state of congestion which would interfere with the arrangements for the admission of stretcher cases. These aid posts were staffed by Civil Defence personnel and were administered by the local authority. In the case of County Council hospitals this arrangement was altered a few months after the outbreak of war, as it was felt that the medical resources in these hospitals were adequate to cope with any situation likely to arise, and Civil Defence personnel were therefore withdrawn from the first-aid post section.

In September, 1942, the Regional Commissioners decided, as the result of experience, that *ad hoc* first-aid posts at hospitals were unnecessary, and suggested to the governing bodies of the hospitals concerned that the treatment of walking air-raid casualties should be carried out by the hospitals, as part of their obligations under the Emergency Hospital Scheme. Towards the end of 1942 negotiations between the County Council and representatives of individual voluntary hospitals were proceeding satisfactorily on these lines.

As successive reductions in the number of paid personnel came about in 1942 a greater responsibility for the efficiency of the service fell on part-time volunteers who incidentally had come under the " standstill order " (H.S. Circulars 12/42 and 19/42) since the beginning of the year.

The original first aid post service in the Group consisted of 104 actively staffed first-aid posts and 59 heavy mobile units, but at the end of 1942 the establishment comprised :—

(*a*) 58 First-aid posts (active).
(*b*) 25 First-aid posts (care and maintenance).
(*c*) 33 Heavy mobile units.
(*d*) 31 Light mobile units.

In addition treatment facilities existed at a number of hospitals as part of the Emergency Hospital Scheme.

Gas Cleansing Facilities.

Until 1941 the arrangements provided for the cleansing of persons contaminated by blister gases consisted of cleansing units located at first-aid posts. In January, however, the Ministry decided to increase these facilities in the vicinity of large shopping centres, traffic termini, market places and such like—so called " special localities," where large numbers of the population might be present at some distance from their homes—by the provision of " public cleansing stations " in these localities.

Public baths, swimming pools, washhouses and laundries, where suitably sited in relation to the approved " special localities," were adapted in part as cleansing stations, but in the absence of such premises it was necessary to requisition and adapt buildings of other types, and in a number of instances where there did not exist premises suitable for adaptation, it became necessary to erect new buildings designed for the purpose.

With the approval of the Ministry of Health work was commenced on 45 public cleansing stations during the year, and as these were completed they were equipped and supplied with stocks of clothing on the scale approved by the Ministry.

During the period of air raids the morale of first-aid post personnel was of a high standard, but in the succeeding long period of inactivity some deterioration was noted. This tendency was successfully met by the provision of facilities for part-time work in hospitals and clinics, and by the employment of the staff of gas cleansing units of first-aid posts in the treatment of scabies and verminous conditions.

Stretcher Parties.

As the character of the air-raid damage made much greater demands on the rescue service than on the stretcher parties, on many occasions the latter assisted in rescue work. In February, 1941, the Regional Commissioners issued instructions that stretcher parties were to be trained in rescue work and rescue parties in first-aid work. This training began then and continued throughout the year, so that the services were made to a greater extent interchangeable.

Towards the end of 1941 the Regional Commissioners, having in mind the national shortage of man-power, decided in the light of actual experience of heavy raiding that rescue parties and stretcher parties should amalgamate. The age of reservation of the new rescue service, thereafter divided into two categories, heavy and light, was raised to 35. This amalgamation resulted in a general reduction in strength, and led to a corresponding reduction in the number of depots and, in fact, a general re-organisation of the service. Whilst the total strength of the new service became much lower than that of the original separate stretcher and rescue services, training had been carried out throughout the year, so that the individual members were able to perform a dual function, thus leading to economy in man-power. Should heavy raiding return, though the numbers of the personnel will be less, they will be experienced and trained in all duties.

Ambulance Service.

During the early part of 1941 there was no alteration of the general Government policy with regard to the operation of the Civil Defence ambulance service. In August of that year, in order to effect economy in the use of vehicles, the Ministry of Health decided to adapt existing Civil Defence ambulances to enable sitting casualties as well as stretcher cases to be carried. A scheme of this nature had already been devised in the County, and many ambulance vehicles had already been adapted for this purpose.

In September, 1941, Ministry of Health Circular 2486 placed on the Civil Defence ambulance service responsibility for the conveyance of Home Guard casualties in the event of invasion. Conferences with the military authorities were held and a satisfactory scheme evolved.

The establishment of a National Fire Service with the abolition as separate entities of local fire brigades, had its repercussions upon the ambulance service. Most local authorities in the County had provided before the war a civil ambulance service for cases of accident and sickness, and had based the vehicles upon the local fire stations. With the passing of local fire stations into the hands of a national organisation, other arrangements for garaging, servicing and manning local civil ambulances had to be made. By the terms of a Circular issued by the Ministry of Health in November, 1941, these ambulances became based upon Civil Defence ambulance stations, and the staff of the latter became available for running the pre-war civil ambulances for their ordinary peace-time duties. The ambulances also became available for service in air raids if the need arose. A total of 56 ambulances, the property of 29 different local authorities in the Group, were affected by this arrangement.

Early in 1942 the Ministry of Health decided to reduce the number of vehicles in the service, having regard to the number used during the raids in 1941. As a result the County Council was called upon to reduce its ambulances from 557 to 444, motor cars from 382 to 148, and to adopt a personnel establishment fixed at 3,626. With the introduction of a 24-hour shift system this number was later reduced to 2,072.

Following the adoption in March, 1942, of the 24-hour shift system, Home Security Circular 122 set up new standards for sleeping accommodation and sanitary arrangements in depots. Arising from this a considerable amount of work had to be carried out in all ambulance stations to bring them up to the new and improved standards.

As the result of air raids during 1941, 838 persons were conveyed to hospitals and 658 to first aid posts. In addition the following inter-hospital movements were carried out :—

	1941.	1942.
Number of patients carried	5,638	5,683
Green Line Coach ambulances	391 journeys	293 journeys
American ambulances	592 journeys	724 journeys
Civil Defence ambulances and cars	770 journeys	731 journeys

Group School.

In 1941 the Civil Defence Committee decided to establish a central school for civil defence training at Hendon to serve all the local authorities in the Group. The main object of the school, which was opened in November, 1941, was to conduct such courses as might be difficult to organise locally; but it was necessary that the policy should be flexible and adapted to meet changing needs. For the casualty services lay first-aid instructors had been appointed a month before the school opened and programmes were devised in consultation with the Public Health Department.

Whilst a certain number of recruits were taught elementary first aid at the school, the bulk of the work at first was the teaching of advanced first aid to leaders of rescue parties. Later, as the numbers of doctors available for instruction became less, it appeared desirable to focus attention on the training of lay instructors who might be able to carry out first-aid training locally.

The school at Hendon was the first of its kind in the London Region and much of the work at first was experimental. Other schools have since been established, including one at the London Regional Headquarters. Some of the programmes devised by the London Regional Headquarters for all the schools in the London Region have been based on programmes originally in use at the Hendon School.

The training of instructors has now been made uniform throughout the Region, and a regional certificate is issued to candidates satisfying the Group School examiners. Syllabuses of instruction and lecture notes have been provided for instructors trained at the school. These have been drawn up by the Chief Instructor in consultation with the Public Health Department of the County Council and medical officers of health of local authorities have expressed their satisfaction at this assistance in the conduct of training.

It was the intention to hold refresher courses regularly, but the demands made on the school have so far not allowed this.

There is no doubt that the work undertaken at the school has played a large part in the production of a well-trained Civil Defence force in the Group.

Maternity and Child Welfare.

Administration of Midwives Acts, 1902–1936.

Area.—Throughout 1941 and 1942 the County Council was the Local Supervising Authority for the whole of the county, with the exception of the Boroughs of Ealing, Edmonton, Hendon, Heston and Isleworth, Tottenham, Twickenham and Willesden, and the urban districts of Enfield and Harrow.

Domiciliary Service of Midwives.—The number of confinements attended in 1941 by the domiciliary midwives engaged in carrying out the Council's scheme was slightly less than in 1940, owing to a decrease in the number of births and the fact that more institutional accommodation was available. No change was made in the number of midwives employed, and the help rendered by the health visiting staff in the previous year was not again utilised. In 1942, however, the number of confinements again increased, though not quite to the level reached in 1940.

The following table sets out particulars of the number of whole-time salaried midwives engaged in the various parts of the Council's area, whether employed by the County Council or by local welfare councils on their behalf, or by voluntary associations subsidised by the County Council, together with information as to the number of confinements attended in the capacity of either midwife or maternity nurse.

Borough or District	Midwives Employed by	Number of whole-time salaried Midwives at end of year		Confinements Attended	
		1941	1942	1941	1942
Acton Brentford and Chiswick	Queen Charlotte's Hospital	5	4	352	471
Feltham	County Council	6	6	355	426
Finchley	Borough Council	3	3	241	247
Friern Barnet	County Council	2	2	113	108
Hayes and Harlington	,, ,,	8	8	523	494
Hornsey	Borough Council	4	5	297	376
Potters Bar	South Mimms, Potters Bar, and Bentley Heath Nursing Association	2	2	110	114
Ruislip-Northwood	County Council	4	4	262	307
Southall	Borough Council	5	5	293	335
Southgate	Southgate Queen's Nursing Association	2	2	219	227
Staines—					
Ashford (part of)	Ashford District Nursing Association	2	2	122	118
,,	County Council	1	—	61	34
Laleham and Staines	Staines and Laleham Nurse Society	2	2	124	117
Stanwell	Stanwell District Nursing Association	1	2	99	86
Sunbury—	County Council	2	2	136	119
Shepperton	Shepperton and Littleton District Nursing Association	1	1	74	101
Uxbridge	County Council	3	3	263	316
Wembley	Kingsbury District Nursing Association	2	2	160	204
,,	Wembley District Nursing Association	3	3	260	344
Wood Green	Borough Council	3	3	187	222
Yiewsley and West Drayton	County Council	4	4	239	258
	Totals	65	65	4,490	5,024

Births Attended by Midwives.—Of the total number of midwives residing in the area of Middlesex supervised by the County Council, who notified their intention to practise, returns were received from 100 who had actually practised in 1941 and from 109 in 1942, setting out the number of cases attended by them in the capacity of midwife or maternity nurse. Medical officers of health of boroughs and urban districts in the County, which also are local supervising authorities, have been good enough to supply me with similar information relating to their respective districts,

so that it has been possible to compile the following comprehensive table referring to the entire administrative county.

Boroughs and Urban Districts	Births attended by Midwives				Births at which Midwives acted as Nurses			
	In Patients' Homes		In Nursing Homes		In Patients' Homes		In Nursing Homes	
	1941	1942	1941	1942	1941	1942	1941	1942
Acton } Brentford and Chiswick	331	445	—	—	24	31	—	—
Feltham	337	385	—	—	18	47	—	—
Finchley	215	220	16	33	26	27	33	59
Friern Barnet	111	107	—	—	2	57	6	—
Hayes and Harlington	577	537	—	—	56	53	63	76
Hornsey	283	365	1	—	34	32	93	141
Potters Bar	61	68	—	—	71	77	—	—
Ruislip-Northwood	322	340	24	17	103	132	62	82
Southall	298	353	126	179	58	56	70	81
Southgate	159	186	—	—	62	119	259	480
Staines	305	232	—	—	101	133	—	—
Sunbury	170	174	—	—	40	46	—	—
Uxbridge	249	301	4	12	60	66	9	36
Wembley	275	341	11	21	150	211	70	7
Wood Green	176	179	—	—	68	99	—	—
Yiewsley and West Drayton	232	242	—	—	7	16	—	—
Attendcd by midwives residing outside the County Council's area	37	18	—	—	16	16	—	—
Totals	4,138	4,493	182	262	896	1,218	665	962
Ealing	541	731	49	97	171	138	145	329
Edmonton	566	728	—	—	116	148	—	—
Enfield	629	806	4	33	188	252	—	—
Harrow	914	894	49	94	250	294	251	259
Hendon	384	525	2	4	124	196	85	64
Heston and Isleworth	491	491	12	27	82	104	118	209
Tottenham	632	955	1	—	73	22	—	—
Twickenham	425	438	373	14	85	162	182	174
Willesden	352	618	—	—	129	151	3	9
Grand totals	9,072	10,679	672	531	2,114	2,685	1,449	2,006

The total number of births in the whole County in 1941 was 26,927, and 9,744 (36 per cent.) of these were attended by midwives, whilst 3,563 (13 per cent.) were attended by practising midwives in the capacity of maternity nurses.

In 1942, of 33,150 births, 11,210 (34 per cent.) were attended by midwives and 4,691 (14 per cent.) by practising midwives acting as maternity nurses.

NOTIFICATIONS.—The numbers of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, during the years 1938–42, were as follows :—

Notifications of :—	1938	1939	1940	1941	1942
Sending for medical assistance	1,348	1,511	1,675	1,483	1,582
Still-birth	54	61	59	68	62
Death of infant	33	25	33	29	47
Death of mother	1	2	2	1	2
Laying out the dead	15	34	23	23	16
Artificial feeding	35	50	53	58	64
Liability to be a source of infection	98	76	52	121	150
Totals	1,584	1,759	1,897	1,783	1,923

MATERNAL DEATHS.—One notification in 1941 and two in 1942 related to the deaths of women while actually under the care of a midwife. To these cases must be added the number of deaths of women who, while being attended by midwives, became so seriously ill that transfer to a hospital

was necessitated, where they subsequently died. Five cases of this nature occurred in 1941 and one in 1942. The maternal death-rate among midwives' cases in 1941 was 1·39 per 1,000 births attended, and for 1942, 0·63. (The maternal death-rate for all births in the administrative County during 1941 was 2·43, and in 1942, 2·11 per 1,000.)

Puerperal Pyrexia.—The following table records the number of notifications of puerperal pyrexia (*a*) in the county generally, and (*b*) in the area for which the County Council is the local supervising authority, together with details concerning midwives' cases in the latter area.

Year	Births Registered		Cases Notified		Deaths from Puerperal Sepsis		Births attended by Midwives	Cases notified in the Practices of Midwives	Deaths from Puerperal Sepsis in the Practices of Midwives
	(*a*)	(*b*)	(*a*)	(*b*)	(*a*)	(*b*)	(*b*)	(*b*)	(*b*)
1939	31,871	13,248	501	127	22	13	4,592	23	Nil
1940	29,517	12,573	361	75	18	11	4,924	21	1
1941	26,927	11,719	408	104	23	8	4,320	19	Nil
1942	33,150	14,224	552	177	23	15	4,755	29	Nil

Ophthalmia Neonatorum.—During 1941 medical assistance was sought by certified midwives on account of inflammation of, or discharge from, infants' eyes in 111 instances; and in 15 of these cases the medical practitioners called in notified the condition as ophthalmia neonatorum. In 1942 the numbers were 102 and 17. No apparent injury to vision resulted in any instance.

Visits of Inspection.—Visits made by the Council's supervisors of midwives during 1941 and 1942 may be classified as follows:—

	1941.	1942.
Visits to State certified midwives	631	630
,, women not certified under the Midwives Acts	9	8
,, patients' homes for supervision of nursing visits, etc. ...	271	252
,, premises in connection with the registration of nursing homes	186	157
,, ante-natal clinics and welfare centres	133	92
,, homes of foster-mothers in connection with child life protection	5	8
,, day nurseries	99	357
,, other persons in connection with investigations under the Midwives Acts, &c.	76	132
Total	1,410	1,636

Post-certificate Instruction.—Rules, framed in accordance with Section 7 (1) of the Midwives Act, 1936, requiring midwives to attend a course of instruction, remained in abeyance throughout the two years. Arrangements were made for five midwives to receive a course in the administration of gas and air analgesia during 1941 and nine during 1942. In 1942 the non-residential course of post-certificate instruction in midwifery was resumed, arranged in conjunction with the London County Council, at which ten midwives from the area supervised by the County Council attended.

Prohibition of Unqualified Persons Acting as Maternity Nurses for Gain.—The Minister of Health made an order, which came into force on 1st November, 1939, applying Section 6 of the Midwives Act, 1936, to the area for which the County Council is the local supervising authority. From that date it has been illegal for the nursing of a woman in childbirth to be carried out for gain by any person who is not either a legally qualified medical practitioner, a State-certified midwife, a State-registered general nurse, or a woman who, before 1st January, 1937, was certified by the authorities of a hospital approved by the Ministry of Health to have been trained in obstetric nursing, and who has given notice in writing to the Council that she is so certified.

Nine women notified the County Council of their training in obstetric nursing during 1941 and two in 1942. Warning was given to a number of women who had acted as maternity nurses, but who are now debarred by the application of this section of the Midwives Act from so doing, but no legal proceedings were instituted.

Payment of Fees to Medical Practitioners.—The following table gives information regarding fees paid by the County Council to medical practitioners called in by midwives on account of illness or abnormality occurring during pregnancy, labour or puerperium.

Calendar Year	A Number of notifications of sending for Medical Aid	B Number of Claims for Fees received	Percentage of B to A	C Total amount due to Doctors in respect of cases attended by them during financial year		D Income from Patients in respect of Doctors' fees	
					£ s. d.		£ s. d.
1941 ...	1,483	1,162	74·3	1941–42	1,814 19 0	1941–42	391 14 6
1942 ...	1,582	1,105	69·8	1942–43	1,726 19 6	1942–43	467 1 3

Nursing Homes.

The following table shows the number of registered nursing homes in each borough and urban district for which the County Council is the authority for the supervision of nursing homes. The figures in brackets indicate the number of homes devoted, either wholly or in part, to the reception of maternity cases.

Boroughs and Urban Districts	Number of Nursing Homes on Register at end of year		Approved accommodation (beds) at end of year	
	1941	1942	1941	1942
Acton (*Borough*)	3 (0)	3 (0)	8	8
Brentford and Chiswick (*Borough*)	4 (3)	2 (1)	34	15
Feltham	1 (0)	1 (0)	6	6
Finchley (*Borough*)	14 (4)	12 (3)	109	101
Friern Barnet	1 (1)	1 (1)	5	5
Hayes and Harlington	1 (1)	1 (1)	4	4
Hornsey (*Borough*)	14 (7)	13 (6)	170	164
Potters Bar	0 (0)	0 (0)	0	0
Ruislip-Northwood	4 (3)	5 (4)	10	21
Southall (*Borough*)	2 (1)	2 (1)	26	26
Southgate (*Borough*)	7 (6)	6 (6)	52	54
Staines	2 (0)	2 (0)	26	27
Sunbury	1 (0)	1 (0)	15	46
Uxbridge	3 (1)	3 (1)	29	32
Wembley (*Borough*)	5 (4)	3 (2)	32	17
Wood Green (*Borough*)	1 (0)	1 (0)	4	4
Yiewsley and West Drayton	0 (0)	0 (0)	0	0
Totals	63 (31)	56 (26)	530	530

Births Occurring in Nursing Homes during 1941 and 1942.—An enquiry was made as to the number of births which occurred in nursing homes in the County. In addition to information obtained directly from proprietors of nursing homes registered by the County Council, the following table contains similar particulars with regard to nursing homes in Ealing, Edmonton, Enfield, Harrow, Hendon, Heston and Isleworth, Tottenham, Twickenham and Willesden, which have been kindly supplied by the respective medical officers of health, and thus furnishes a comprehensive figure for the whole administrative County.

Attended by	County Council's Area	Ealing	Edmonton	Enfield	Harrow	Hendon	Heston & Isleworth	Tottenham	Twickenham	Willesden	Administrative County
1941											
(*a*) Doctors ..	853	145	0	0	661	85	118	0	182	3	2,047
(*b*) State certified midwives, no doctor being in attendance	185	49	0	4	49	2	12	1	373	0	675
Totals ..	1,038	194	0	4	710	87	130	1	555	3	2,722
1942											
(*a*) Doctors ...	1,546	329	0	0	654	214	209	0	233	9	3,194
(*b*) State certified midwives, no doctor being in attendance ...	273	97	0	33	94	4	27	0	14	0	542
Totals ...	1,819	426	0	33	748	218	236	0	247	9	3,736

Maternity and Child Welfare Service.

The County Council is the authority for maternity and child welfare in 9 of the 26 districts included in the administrative County, viz., the Urban Districts of Feltham, Friern Barnet, Hayes and Harlington, Potters Bar, Ruislip-Northwood, Staines, Sunbury, Uxbridge, and Yiewsley and West Drayton.

The following is a summary of certain statistics relating to the maternity and child welfare area of the County Council :—

	1941	1942
Area	53,535 acres	
Population (estimated by Registrar General)	307,740	309,030
Live-births	5,217	5,979
Birth-rate	17·0	19·3
Number of infant deaths	289	293
Infantile mortality rate, per 1,000 live-births	55·8	49·0
Number of maternal deaths	10	12
Maternal mortality rate, per 1,000 total births	1·87	1·95
Number of cases of puerperal pyrexia	58	99
,, ophthalmia neonatorum	14	13

During 1941 the Council's staff was augmented by the appointment of one additional health visitor and school nurse.

No new centres were opened during the year, but two centres were transferred to more suitable premises, at Wetherell Road, Friern Barnet, and the Minet Health Centre, Hayes. An additional welfare session was arranged at Eastcote, and sessions held at Hanworth and North Hillingdon since the beginning of the war to prevent overcrowding, which were found to be unnecessary, were cancelled. A normal service was maintained throughout the year.

In 1942 four additional health visitors and school nurses were appointed. One additional ante-natal session was arranged to be held every other week at Minet Health Centre, Hayes. Two additional welfare sessions were started during the year, one at Bourne Estate, Harlington, and one at Botwell Welfare Centre, Hayes. In order to avoid confusion with the Ashford Centre, the Ashford Common Welfare Centre was redesignated and is now known as the Spelthorne Centre.

Attendances at Welfare Centres.—The following table gives the attendances of women and children at the Council's welfare centres :—

	1941	1942
Ante-natal Clinics—		
Number of sessions held	1,126	1,220
New cases attending	3,761	4,099
Post-natal cases attending	366	489
Total attendances	17,463	20,901
Welfare Centres—		
Number of sessions held	3,437	3,512
New cases attending—		
Expectant mothers	82	172
Infants under 1 year of age	4,699	5,087
Children (1 to 5 years)	1,937	1,121
Attendances—		
Expectant mothers	475	648
Mothers attending with infants	124,671	125,173
Infants	75,003	79,724
Children (1–5 years)	61,144	56,501
Total attendances	261,293	262,046
Average attendance of infants and children each session	40	39

Home Visits by Health Visitors.—The home visiting undertaken by the County Council's health visitors is shown in the following table :—

	1941	1942
Pre-natal visits	4,081	4,192
Visits to infants under 1 year	24,027	25,443
Visits to children (1–5 years)	31,360	30,756
Total home visits	59,468	60,391
Total number of visits to individual families	48,294	49,681

PROVISION OF MILK, ETC.—The following table gives information as to the cost of fresh and dried milk, &c., issued at the centres during the *financial* years 1941-42 and 1942-43 :—

Year 1941-42	Amount	Cost Price	Contributed by Mothers	Charge on Scheme
		£ s. d.	£ s. d.	£ s. d.
Fresh milk	6,187 (gals.)	928 0 0	—	928 0 0
Dried milk	—	1,885 0 0	1,290 0 0	595 0 0
Cod-liver oil, malt, &c.	—	4,258 0 0	3,105 0 0	1,153 0 0
	Totals ..	7,071 0 0	4,395 0 0	2,676 0 0
Year 1942–43				
Fresh milk	1,460 (gals.)	219 0 0	—	219 0 0
Dried milk	—	1,822 0 0	1,368 0 0	454 0 0
Cod-liver oil, malt, &c.	—	4,767 0 0	3,722 0 0	1,045 0 0
	Totals ...	6,808 0 0	5,090 0 0	1,718 0 0

In the financial year 1941–42 the net cost to the County Council showed a decrease in expenditure of £7,078 on the net cost for the previous financial year, owing to the introduction of the Government scheme for the provision of fresh and national dried milk to expectant and nursing mothers and children under five years of age. In the financial year 1942–43 the net cost to the County Council showed a further decrease of £958.

TREATMENT OF OPHTHALMIA NEONATORUM.—Arrangements exist whereby infants suffering from ophthalmia neonatorum may be admitted to White Oak Hospital, Swanley, one of the hospitals included in the Special Hospitals Service of the London County Council. During 1941, 14 cases of ophthalmia neonatorum were notified in the area for which the County Council is the authority for maternity and child welfare. Six infants were treated at White Oak Hospital, Swanley, one at Hillingdon County Hospital and seven at home.

All fourteen infants made satisfactory recoveries with no apparent injury to vision.

In 1942, 13 cases were notified. Three were treated at home. Four were removed to White Oak Hospital, and six received treatment in Hillingdon County Hospital, in which institution they had been born.

One of the infants died in White Oak Hospital from other causes, and a second left hospital before the final result of treatment was known. All the remaining infants made satisfactory recoveries.

DENTAL TREATMENT.—The following table gives particulars of the dental work which has been carried out during the years 1941 and 1942 under the Council's maternity and child welfare scheme :—

—	Mothers		Children under 5 years of age	
	1941	1942	1941	1942
Inspected	2,008	2,012	1,170	1,286 (221)
Referred for treatment	1,985	1,970	1,059	962 (78)
Attendances for treatment	9,631	10,432	2,822	2,418 (44)
Treatment completed	1,028	1,168	1,018	833 (23)
Administration of general anæsthetics	1,523	1,580	763	568 (10)
,, ,, local ,,	1,007	889	114	34 (7)
Dental extractions	10,644	9,169	2,805	1,948 (35)
Fillings	2,578	3,005	1,326	1,397 (26)
Dental dressings	2,694	2,892	—	— (—)
Dentures fitted	753	876	—	— (—)
Other operations	1,773	2,279	214	202 (—)

This table includes the dental inspection and treatment of expectant and nursing mothers and children below school age who attend welfare centres in Southall and Harrow. The figures in brackets relate to the number of day-nursery children who have received treatment under the scheme.

Child Life Protection.

The position at the end of 1941 was that there were 221 persons on the Council's register receiving 303 children, and at the end of 1942 there were 228 persons receiving 294 children.

Notification of the death of one infant was received in the year 1941. No deaths were reported during the year 1942.

The following visits were paid by the Council's child protection visitors :—

	First Visits.	Subsequent Visits.	Special Investigations.
1941	94	1,089	5
1942	91	1,013	8

War-Time Nurseries.

As part of its arrangements for facilitating the entry of women into industry, the Government in June, 1941, introduced its scheme for the provision of war-time nurseries at which young children could receive care and attention while their mothers were out at work. Under this scheme the Government called upon the County Council to provide and maintain a sufficient number of day nurseries in its maternity and child welfare area, the Government undertaking to repay the net approved expenditure incurred. The area was surveyed and its needs assessed in the light of local demands for labour. As practically no suitable and available premises existed new building was necessary, and this took the form of prefabricated huts, supplied by the Ministry of Health to a standard design. Each nursery of this type consists of a large playroom for toddlers, a smaller room for babies in cots, kitchen, staff rooms, bath and sanitary accommodation, facilities for washing, and a small vestibule for coats and hats.

For convenience of the mothers, ease of administration, and with a view to post-war planning, these new hutted buildings were sited whenever practicable on the grounds of the County Council's elementary schools. The first nursery was opened in June, 1941, in an adapted private house—Bourne House, Hayes—with accommodation for 20 children. This was enlarged in 1942 to receive 40 children, by the addition of a hutted extension.

After initial difficulties and delays had been overcome, rapid building progress was made, and by the close of 1942 fourteen nurseries had been opened. Details of these are shown in the table below.

Each of these 14 nurseries has accommodation for 40 children of all ages up to five years, with the exception of Grange Park Nursery, which takes 80 children, Whitehall School Nursery, which receives 32 children of the ages of two to five years, and the voluntary nursery in Feltham, which deals with a similar age group. Plans for 11 new nurseries and an extension for 40 more children at the Oak Farm Nursery were in hand at the end of 1942, which when completed will provide places for a total of 1,154 children.

Each nursery is in charge of a matron who is a State registered nurse and who has on her staff a trained teacher or warden who supervises the occupations of the older children. Girls from 15 to 17 years of age are received for training and prepared for the diploma of the National Society of Children's Nurseries. The medical supervision of the nurseries is undertaken by members of the Council's staff of assistant medical officers, and the matrons maintain a close contact with the Council's health visitors working in their particular areas.

War-Time Nurseries, 1941–42.

District.	Nursery.	Accommodation.
Feltham	Hampton Road, Hanworth	40 children.
	Feltham Hill School	40 ,,
	Rokeby, Hanworth Road (voluntary)	32 ,,
Hayes and Harlington ...	Bourne House, Dawley Road	40 ,,
	Grange Park School	80 ,,
	Wood End Park School	40 ,,
	Yeading Lane School	40 ,,
Ruislip-Northwood	Lady Bankes School, Ruislip Manor	40 ,,
Staines	Woodthorpe Road School, Ashford	40 ,,
	Tothill Street, Staines	40 ,,
	London Road, Stanwell	40 ,,
Uxbridge	Whitehall School, Cowley	32 ,,
	Oak Farm School, Hillingdon	40 ,,
Yiewsley and West Drayton ...	Providence Road School, Yiewsley	40 ,,
		584 ,,

Infectious Diseases.

The following table sets out figures showing the incidence of notifiable infectious diseases in Middlesex during the years 1941 and 1942:—

Disease	1941*					1942				
	Cases Notified	Case-rate per 1,000 Population	Fatal Cases	Case-mortality rate per cent.	Death-rate per 1,000 Population	Cases Notified	Case-rate per 1,000 Population	Fatal Cases	Case-mortality rate per cent.	Death-rate per 1,000 Population
Scarlet fever	2,402	1·28	5	0·21	0·003	4,347	2·25	1	0·02	0·001
Diphtheria	980	0·52	59	6·02	0·03	769	0·40	53	6·89	0·03
Dysentery	56	0·03	—	—	—	335	0·17	—	—	—
Enteric fever	179	0·10	5	2·79	0·003	34	0·02	2	5·88	0·001
Erysipelas	409	0·22	—	—	—	459	0·24	—	—	—
Cerebro-spinal fever	336	0·18	65	19·3	0·03	201	0·10	38	18·9	0·02
Encephalitis lethargica, acute	13	0·007	—	—	—	6	0·003	—	—	—
Poliomyelitis, acute ...	57	0·03	3	—	—	26	0·01	4	—	—
Polioencephalitis, acute	7	0·004				3	0·002			
Measles	18,690	9·97	38	0·20	0·02	17,785	9·22	18	0·10	0·01
Whooping cough ...	9,382	5·00	80	0·85	0·04	4,356	2·26	38	0·87	0·02
†Pneumonia (acute) ...	1,816	0·97	—	—	—	1,632	0·85	—	—	—
† ,, (all forms)	—	—	1,332	—	0·71	—	—	1,115	—	0·58
Puerperal pyrexia ...	408	‡16·0	23	5·64	§0·90	552	‡16·7	23	4·17	§0·69
Ophthalmia neonatorum	91	‡3·57	—	—	—	101	‡3·05	—	—	—
Malaria	8	0·004	—	—	—	10	0·005	—	—	—

* The statistics of notifiable diseases relate to the numbers of cases notified in the County during the 53 weeks ended 3rd January, 1942.

† Case-mortality rate cannot be given, as only cases of acute pneumonia are notified, while the figure for deaths includes all forms of the disease.

‡ Case-rate per 1,000 live births.

§ Death-rate for 1,000 live births.

The incidence of diphtheria continues to decline, and the case-rate of 0·40 per 1,000 population in 1942 is the lowest ever recorded for the County. It may now reasonably be suggested that the policy of immunisation against the disease is beginning to have its effect in conferring on the population an increased resistance to diphtheria. The campaign was opened by the Ministry of Health on a national basis towards the end of 1940, and the County Council immediately took steps to assist local authorities within its Maternity and Child Welfare and Elementary Education areas in pressing it home. Clinics and welfare centres belonging to the County Council were made available to medical officers of health for holding immunisation sessions, and the County Council's assistant school medical officers were authorised to assist in the actual work of immunisation. Health visitors and school nurses were requested to popularise the campaign with parents and children, and to co-operate to the full with the local medical officers of health. At the end of December, 1942, the position was that approximately 51 per cent. of the estimated child population up to 15 years of age had been immunised. The estimated number of children successfully immunised against diphtheria in each of the sanitary districts of the County, as calculated on figures provided by the Ministry of Health, is shown in the following table:—

Diphtheria Immunisation as at 31st December, 1942.

Boroughs and Urban Districts.	Under 5 Years.			5–15 Years.		
	Child Pop. under 5 yrs. (estimated).	No. immunised (estimated).	Per cent. immunised.	Child Pop. 5–15 yrs. (estimated).	No. Immunised (estimated).	Per cent. immunised.
Acton (*Borough*)...	3,300	1,794	54·4	5,266	2,358	44·8
Brentford and Chiswick (*Borough*)	3,858	1,428	37	3,965	1,548	39
Ealing (*Borough*)	12,000	6,480	54	19,000	7,790	41
Edmonton (*Borough*)	7,600	3,268	43	13,000	3,900	30
Enfield	7,151	4,290	60	12,711	7,366	58
Feltham	3,509	1,309	37.3	6,667	3,588	53·8
Finchley (*Borough*)	3,500	2,023	57·9	6,000	4,632	77·2
Friern Barnet	1,384	552	40	2,179	981	45
Harrow	14,000	5,950	42·5	24,000	12,480	52
Hayes & Harlington	5,000	3,350	67	10,000	7,600	76
Hendon (*Borough*)...	5,000	3,950	79	16,000	7,040	44
Heston & Isleworth (*Borough*) ...	7,082	2,450	34·6	12,624	7,787	61·8
Hornsey (*Borough*)	4,800	4,320	90	7,364	6,627	90
Potters Bar	1,100	913	83·1	2,040	1,546	75·8
Ruislip-Northwood	5,600	1,770	31·6	10,400	2,444	23·5
Southall (*Borough*)	4,000	2,100	52·5	7,600	3,626	47·7
Southgate (*Borough*)	3,200	1,683	52·6	6,300	3,969	63
Staines	3,100	1,612	52	6,200	2,505	40·4
Sunbury	1,500	825	55	2,500	1,875	75
Tottenham (*Borough*)	7,500	4,500	60	13,000	6,500	50
Twickenham (*Borough*)	5,000	3,250	65	12,500	6,875	55
Uxbridge	8,600	1,969	22·9	8,100	4,252	52·5
Wembley (*Borough*)	8,000	4,680	58·5	12,000	6,600	55
Willesden (*Borough*)	10,000	3,450	34·5	15,500	4,820	31
Wood Green (*Borough*)	2,500	975	39	5,000	3,900	78
Yiewsley & West Drayton ...	1,500	741	49·4	2,200	1,555	70·7
The County	139,784	69,632	49·8	242,116	124,164	51·3

The figures at the end of 1942 showed at least that a satisfactory start had been made in immunising the child population of Middlesex, but a well-sustained and intensified effort should prevail until an immunity to diphtheria, as nearly complete as possible, is conferred on the community.

Scarlet fever showed a slight increase in 1941 and a more marked increase in 1942. Measles and whooping cough both increased substantially in 1941, the increased incidence of measles being only slightly reduced in 1942.

A notable characteristic of measles, observed over a very long period of time, has been its prevalence in alternate years. In Middlesex, a high incidence and correspondingly high mortality could safely be predicted in those years ending with an even number; comparatively little sign of the disease being apparent in the "odd" years. Since the war this characteristic has disappeared, 1939 showing a low incidence according to rule, but thereafter the disease has been prevalent, the year 1941 not exhibiting the expected remission. It seems possible that the considerable movements of the child population brought about by evacuation and subsequent return have disturbed the herd immunity of Middlesex children. It will be interesting to notice in the years to come how the epidemiology of the disease is affected.

The number of cases of dysentery was unusually high in 1942. The disease was mild in character—no deaths were recorded—and was mostly due to infection with the Sonne type of dysentery bacillus. Sonne dysentery was prevalent in 1942, not only in Middlesex but in many parts of the country. Many cases were reported from general and mental hospitals where the epidemic nature of the illness gave the clue to its identity. Doubtless many more cases occurred among the general population and owing to their mild nature were not diagnosed and notified.

In 1941 notifications of enteric fever reached a high total compared with previous years. Of the total, 66 were cases of typhoid fever and 113 were paratyphoid infections.

Cerebro-spinal fever showed a sharp rise in incidence soon after the outbreak of war, and this has remained consistently well above pre-war level. The disease is one which is associated with overcrowding and was a source of serious trouble in the war of 1914–1918. New methods of treatment by chemotherapy have greatly reduced its mortality.

Coincident with the increase in the number of births in 1942 there was a rise in puerperal pyrexia notifications, but the number of deaths from this cause did not increase on the 1941 total.

No cases were notified of smallpox, cholera, plague, typhus, relapsing fever or anthrax.

Public Vaccination.

The results of the operation of the Vaccination Acts in Middlesex may be summarized as follows :—

——	1938	1939	1940	1941
Births registered	25,861*	25,823*	25,287*	21,523*
Infants successfully vaccinated	9,903	9,065	8,576	8,537
Infants insusceptible to vaccination	90	96	109	126
Infants who had had smallpox	—	—	1	1
Statutory declarations of conscientious objection	9,663	9,249	7,854	6,328
Infants died unvaccinated	856	823	943	842
Vaccination postponed by medical certificates	405	321	325	310
Removals to other districts	2,108	2,609	2,935	2,321
Removals to places unknown, &c.	1,552	2,097	2,512	1,806
Otherwise unaccounted for	1,284	1,563	2,032	1,252

* This figure does not include re-registered births or cases of children born in other districts.

Of 25,287 infants whose births were registered in Middlesex during 1940, 943 died unvaccinated. Of the remainder, 8,685 (35·7 per cent.) were successfully vaccinated or were certified to be insusceptible to vaccination. Statutory declarations of conscientious objection were made in respect of 7,854 infants (32·3 per cent.) whilst 7,804 infants were not vaccinated for various other reasons.

Of 21,523 infants whose births were registered in Middlesex during 1941, 842 died unvaccinated. Of the remainder, 8,663 (41·8 per cent.) were successfully vaccinated, or were certified to be insusceptible to vaccination. Statutory declarations of conscientious objection were made in respect of 6,328 (30·6 per cent.), whilst 5,689 infants were not vaccinated for various other reasons (postponement on medical certificate, removal, &c.).

Isolation Hospital Accommodation.

(*a*) *Typhus.*—Typhus fever is a louse-borne infection, characterised by severe nervous symptoms and a very high mortality rate. Although endemic in parts of the Continent it has been, to all intents and purposes, unknown in this country for many decades past.

With the progress of hostilities in Europe and consequent removal of many of the checks upon the spread of infectious diseases in large areas of the Continent, the need for making some provision to deal with the possible outbreak of typhus in this country became evident. Towards the end of 1941 the Minister of Health addressed a circular to local sanitary authorities, asking them to consider what steps they could take to deal with any outbreak of typhus which might occur in their areas. As a result a number of Middlesex authorities approached the County Council with a request that it should take a lead in the matter, as it was widely felt that it would be wasteful and inefficient for individual districts to make separate arrangements for the hospital treatment of typhus cases, and that it would be preferable to concentrate any Middlesex cases, which might arise, in one or two isolation hospitals.

Accordingly a conference of medical officers of health from all the boroughs and urban districts in the County was held at the Middlesex Guildhall on January 27th, 1942, to discuss the Ministry's circular. This conference revealed an unanimous desire on the part of all local authorities in the County to participate in a scheme, to be operated by the County Council, for the concentration of typhus fever cases from any part of the County in one or two isolation hospitals.

As a result of approaches made to them the boards of management of the Uxbridge Joint Isolation Hospital and the Hornsey, Finchley, Wood Green and Friern Barnet Joint Isolation Hospital were good enough to agree to allocate accommodation at their hospitals and to provide all necessary medical and nursing attention for possible cases of typhus occurring anywhere in Middlesex. A scheme on these lines was approved by the County Council at its meeting in February, 1942.

Under the scheme 40 beds are immediately available at the hospitals mentioned for the reception of cases of typhus, and in case of need the accommodation may be extended to the total capacity of the two hospitals—upwards of 200 beds in all. In the event of this user affecting ordinary

admissions the boards of management of the other isolation hospitals in the County have agreed to accept cases of notifiable infectious diseases requiring treatment in hospital from the areas thus deprived of normal isolation hospital facilities.

For its part the County Council has accepted responsibility for the cost of certain structural adaptations required to be carried out at the hospitals, and of any additional equipment necessary such as special typhus suits which must be worn by all personnel engaged in the transport or treatment of typhus cases. It will also be responsible for the cost of maintenance in hospital of typhus patients, if and when cases occur.

(*b*) *Smallpox.*—The County Council is the authority for the provision of smallpox hospital accommodation for the whole of the administrative county. It has met its obligations by entering into an agreement with the London County Council whereby the very extensive accommodation provided by that authority has been made available for the reception of any smallpox cases occurring in the County of Middlesex.

(*c*) *Other Acute Specific Fevers.*—In the Annual Report for 1938, detailed figures were given for the eleven separate isolation hospital authorities in Middlesex, showing the number of beds to be provided by each under the scheme prepared by the County Council, as finally modified by the Ministry of Health; together with the number of beds actually provided at the close of 1938.

These figures remained basically unchanged at the close of 1942. The beds maintained for the reception of casualties at isolation hospitals under E.M.S. arrangements to which reference was made in the last Annual Report have been reduced by the withdrawal of Enfield and Edmonton Joint Isolation Hospital from the scheme on April 28th, 1942.

The number and distribution of scheduled E.M.S. beds on December 31st, 1942, was therefore as set out below :—

	Casualty Beds.
Hendon Isolation Hospital	150
Willesden Municipal Hospital	230
South Middlesex and Richmond Isolation Hospital	220
Ealing, Clayponds Isolation Hospital	200

Tuberculosis.

The numbers of new cases of tuberculosis reported during the years 1941 and 1942 by medical officers of health of the constituent local authorities of Middlesex were 3,336 and 3,441 respectively. Besides those cases which were notified for the first time in 1941 and 1942, the figures include persons who changed their place of residence from one district to another within the County, and in accordance with the Regulations were the subject of primary notification in each district; they also include a considerable number of persons with established disease who removed into the County during the same years.

As measured by the number of cases reported, the incidence rate of tuberculosis for the last five years per 1,000 living is shown below :—

	All forms of Tuberculosis.	Pulmonary only.
1938	1·20	0·99
1939	1·12	0·95
1940	1·23	1·04
1941	1·49	1·29
1942	1·60	1·36

The number of deaths from tuberculosis in 1941 and 1942 is given in the following table :—

Year	Deaths			Death-rate per 1,000 living	
	Pulmonary	Non-Pulmonary	Total	Middlesex	England and Wales
1941	1,154	172	1,326	0·70	0·728
1942	1,040	164	1,204	0·62	0·657

The lowest figure for the death-rate from tuberculosis in Middlesex yet recorded was 0·54 in 1938. The first complete year of war, 1940, showed a sharp rise over this figure to 0·62, and in 1941 the rise in incidence and the death-rate continued. In 1942, however, the death-rate receded again to the

1940 level, but the incidence of new cases reported has continued to rise though to a less extent than in the early part of the war. This experience in Middlesex is identical with that reported for the country as a whole in the summary report of the Ministry of Health.

New Cases of Tuberculosis, 1941 *and* 1942.

Age Periods	Pulmonary				Non-pulmonary			
	Male		Female		Male		Female	
	1941	1942	1941	1942	1941	1942	1941	1942
0–1	5	4	2	7	5	1	6	1
1–5	27	28	23	27	29	27	38	21
5–10	26	43	16	30	33	31	31	38
10–15	27	37	23	34	16	41	23	32
15–20	182	177	165	204	16	30	29	38
20–25	173	198	256	282	19	17	31	36
25–35	389	351	357	389	33	42	51	55
35–45	311	318	157	174	29	24	19	28
45–55	262	203	75	80	12	12	10	13
55–65	154	127	56	42	4	6	3	12
65 and upwards ...	72	54	29	27	9	5	8	3
Totals... ...	1,628	1,540	1,159	1,296	205	236	249	277

As will be seen from the above table, the incidence of pulmonary tuberculosis in women is more concentrated between the ages of 15 and 45, while that of men is spread more evenly between 15 and 65, with a peak for both sexes between 25 and 35.

With regard to deaths also, a far higher proportion of the total number of deaths among women occurs between the ages of 15–45 than is the case with men (*see* table below).

Deaths from Tuberculosis, 1941 *and* 1942.

Age Periods	Pulmonary				Non-pulmonary			
	Male		Female		Male		Female	
	1941	1942	1941	1942	1941	1942	1941	1942
0– 1	2	1	3	2	5	6	2	6
1– 5	5	3	2	5	13	19	26	8
5–15	3	8	2	4	15	10	9	17
15–45	354	315	363	338	28	29	42	38
45–65	261	222	77	71	13	11	10	9
65 and upwards ...	60	51	22	20	5	3	4	8
Totals... ...	685	600	469	440	79	78	93	86

The following table illustrates the fall in the tuberculosis notification rate and death-rate between the two world wars, and the set-back that this fall has received during the first 3 years of this war :

	Tuberculosis of Respiratory System				All forms of Tuberculosis			
Year	Number of Notifications	Rate per 1,000 Living	Number of Deaths	Death-rate per 1,000 Living	Number of Notifications	Rate per 1,000 Living	Number of Deaths	Death-rate per 1,000 Living
1920	1,887	1·48	974	0·76	2,218	1·74	1,178	0·92
1925	1,630	1·25	922	0·71	1,982	1·52	1,097	0·84
1930	1,623	1·04	981	0·63	2,015	1·29	1,164	0·75
1931	1,749	1·07	989	0·60	2,120	1·29	1,160	0·71
1932	1,733	1·02	965	0·57	2,108	1·24	1,144	0·67
1933	1,750	1·00	1,046	0·60	2,082	1·19	1,224	0·70
1934	1,767	0·98	1,086	0·60	2,098	1·16	1,266	0·70
1935	1,826	0·98	1,028	0·55	2,151	1·15	1,187	0·64
1936	1,833	0·94	1,096	0·56	2,151	1·11	1,257	0·65
1937	1,932	0·96	1,008	0·50	2,312	1·15	1,177	0·58
1938	2,048	0·99	932	0·45	2,469	1·20	1,109	0·54
1939	1,952	0·95	1,012	0·49	2,313	1·12	1,174	0·57
1940	2,043	1·04	1,055	0·54	2,410	1·23	1,217	0·62
1941	2,435	1·29	1,154	0·61	2,804	1·49	1,326	0·70
1942	2,617	1·36	1,040	0·54	3,081	1·60	1,204	0·62

In the table on page 35 are set out details relating to notifications of, and deaths from, tuberculosis in each district in Middlesex during the years 1941 and 1942, together with the number of persons whose names were on the tuberculosis registers of the various local authorities at the close of each of these years.

Notifications of, Deaths from, and Total Number of Cases of Tuberculosis in each District.

Boroughs and Urban Districts	Tuberculosis (all forms)				Cases of tuberculosis on the Registers of Medical Officers of Health of districts in the County on 31st December, 1941 and 1942												
	No. of Cases Notified		No. of Deaths		Pulmonary			Non-Pulmonary			Pulmonary			Non-Pulmonary			Grand Totals
	1941	1942	1941	1942	Males. 1941	Females. 1941	Total 1941	Males. 1941	Females. 1941	Total. 1941	Males. 1942	Females. 1942	Total. 1942	Males. 1942	Females. 1942	Total. 1942	1941 / 1942
Acton (*Borough*)	69	106	41	37	259	211	470	50	51	101	298	234	532	52	59	111	571 / 643
Brentford and Chiswick (*Borough*)	56	86	42	27	372	336	708	83	112	195	387	354	741	83	118	201	903 / 942
Ealing (*Borough*)	219	254	108	111	374	299	673	86	83	169	415	351	766	87	95	182	842 / 948
Edmonton (*Borough*)	159	147	77	56	276	214	490	79	79	158	271	226	497	77	78	155	648 / 652
Enfield	116	117	59	56	242	207	449	86	67	153	267	228	495	90	73	163	602 / 658
Feltham	61	59	19	25	66	38	104	20	16	36	77	53	130	24	19	43	140 / 173
Finchley (*Borough*)	79	88	38	35	161	157	318	31	47	78	188	176	364	37	52	89	396 / 453
Friern Barnet	35	29	5	6	78	46	124	15	12	27	89	47	136	16	15	31	151 / 167
Harrow	385	367	120	109	459	392	851	79	91	170	496	452	948	88	91	179	1,021 / 1,127
Hayes and Harlington	66	78	45	26	106	94	200	26	33	59	130	111	241	26	38	64	259 / 305
Hendon (*Borough*)	192	225	99	74	323	281	604	45	52	97	392	309	701	53	69	122	701 / 823
Heston and Isleworth (*Borough*)	147	184	78	70	234	192	426	33	34	67	283	236	519	37	47	84	493 / 603
Hornsey (*Borough*)	130	160	48	60	360	309	669	107	98	205	388	344	732	120	104	224	874 / 956
Potters Bar	38	35	9	7	42	40	82	10	8	18	36	42	78	11	11	22	100 / 100
Ruislip-Northwood	33	59	28	23	91	54	145	10	18	28	103	58	161	12	24	36	173 / 197
Southall (*Borough*)	64	67	38	31	160	156	316	44	36	80	175	167	342	46	36	82	396 / 424
Southgate (*Borough*)	73	71	37	27	139	119	258	32	32	64	158	124	282	34	34	68	322 / 350
Staines	48	33	14	20	38	33	71	21	13	34	39	50	89	28	16	44	105 / 133
Sunbury	19	15	13	7	25	15	40	5	6	11	29	19	48	7	6	13	51 / 61
Tottenham (*Borough*)	188	186	118	92	306	210	516	76	78	154	327	221	548	84	76	160	670 / 708
Twickenham (*Borough*)	143	132	61	54	289	223	512	65	67	132	312	246	558	69	69	138	644 / 696
Uxbridge	38	76	28	29	65	42	107	11	11	22	82	69	151	16	16	32	129 / 183
Wembley (*Borough*)	159	175	67	63	297	195	492	39	50	89	289	246	535	42	52	94	581 / 629
Willesden (*Borough*)	209	234	95	116	325	250	575	58	58	116	361	278	639	68	65	133	691 / 772
Wood Green (*Borough*)	65	71	30	34	170	140	310	35	51	86	180	158	338	33	50	83	396 / 421
Yiewsley and West Drayton	13	27	9	9	62	46	108	24	26	50	64	49	113	27	31	58	158 / 171
The County	2,804	3,081	1,326	1,204	5,319	4,299	9,618	1,170	1,229	2,399	5,836	4,848	10,684	1,267	1,344	2,611	12,017 / 13,295

Scheme for the Prevention and Treatment of Tuberculosis.

The experiences of the early years of the War lent added urgency to a problem which had already engaged the attention of the County Council—namely the review of the existing scheme for the prevention and treatment of tuberculosis and its subsequent development in such directions as seemed desirable.

Accordingly, in September 1941, a special report was presented to the Public Health Committee embodying a comprehensive survey of the tuberculosis scheme as then in operation together with a number of recommendations both for the extension of its normal services and—more important still—for an adequate scheme of after-care to meet the needs of patients after discharge from sanatoria.

Apart from the after-care scheme, the recommendations comprised suggestions for improvements in the staffing, premises and equipment of the council's chest clinics (hitherto known as tuberculosis dispensaries), and for the provision of a number of additional sanatorium beds. By the end of 1942 most of these recommendations had been implemented and the action taken is recorded elsewhere in the appropriate sections of this Report.

After-Care. In view of the importance of the subject the section of the special report dealing with after-care is quoted at some length :—

" *After-Care.*

" Section 173 (2) of the Public Health Act, 1936, is as follows :—

" The council of a county or county borough may make such arrangements as they think desirable for the after-care of persons who have suffered from tuberculosis."

With the discharge of a patient from a sanatorium with his health improved and his disease, perhaps, quiescent, treatment may be said to be only half complete ; and a great deal still remains to be done for the patient before he can resume his place in the world with full functional efficiency. Many tuberculous patients unfortunately can never hope to attain this state, whatever is done for them, but a large number in time could do so if only the way were made more easy for them in the first year or two after discharge from sanatoria.

In a sanatorium the patient lives under the best hygienic conditions : he has a generous diet, ample rest and such work or exercise as he undertakes is graduated so as to be well within his physical capacity. He is educated in the kind of life he should lead and learns that beyond any active treatment (such as A.P.) which may be prescribed for him after discharge, his continued good health depends upon hygiene, food and rest. On discharge he discovers, if he has not appreciated it before, that food and rest are virtually incompatible. If he rests he does not earn, and without earning he cannot procure the food necessary to maintain his own health and safeguard that of his family. If he returns to full work, as in most cases he attempts to do, he secures the food he needs but lacks the equally important rest. He works beyond his diminished capacity, breakdown occurs, he returns to sanatorium disheartened, and with his prospect of ultimate recovery now greatly reduced.

The factors causing relapse are many, but I am convinced that a potent complex factor is the attempt, which force of economic circumstances compels a half-cured man to make, to compete on equal terms in the industrial market with men who are a hundred per cent. fit. This fact has long been recognised and an attempt to solve the problem made by the establishment of colonies for the tuberculous (such as Papworth), where they can undertake work within their capacity under medical supervision, and their wages in cash or kind be subsidised. The scheme is excellent for a limited number of carefully selected individuals but has not a general appeal, involving as it does a semi-cloistered existence away from family and friends. What is needed is not so much to send more cases to Papworth as to bring the Papworth system into the homes and workplaces of tuberculous people in Middlesex. In my opinion this is by no mean impossible of achievement. It is true that the industries which are taught and practised at Papworth are selected as being specially suitable for tuberculous people, but so far as Middlesex is concerned, where heavy industries are not the rule, there are probably not many forms of work which are particularly deleterious to the tuberculous and it is probably better in the majority of cases for a wage-earner to return to his own occupation to which he has been trained, than to try to take up something altogether new at which he may not be a success and in connection with which there may be difficulty in marketing the products of his work.

The system which I have in mind and to which I should like the committee to give careful consideration would entail (*a*) the estimation on a medical basis of a wage-earner's capacity for work ; (*b*) his employment in his own occupation within his assessed capacity ; and (*c*) the subsidising of his wages to bring them (subject to such limitation as the Council might impose) to something approaching those he would earn for full work. The machinery would operate somewhat as follows :—Shortly before discharge from sanatorium the wage-earner's capacity

for work in terms of hours a day, would be assessed by the sanatorium physician, who would have regard to the nature of the patient's occupation, the distance of travel to and from his work and other relevant factors. The physician's estimate would be passed by the sanatorium almoner to a social worker, appointed for this purpose at the chest clinic in the man's home area, who with the patient's consent would make contact with his employer and endeavour to arrange for the man to return and work the daily number of hours prescribed at pro rata wages.

The social worker would convey to the Area Officer particulars of the patient's working capacity, normal full wages and substandard wages and the Area Officer, after verifying the particulars, if necessary, would pay to the patient the balance (or the greater part thereof) required to bring the income up to full wages. After the patient had left the sanatorium and had returned to his occupation in a part-time capacity he would be kept under close supervision by the tuberculosis officer who from time to time, as the patient's condition improved, would recommend an increase in the amount of work to be performed by the patient in the light of the physical signs and symptoms present. A corresponding decrease in the amount of subsidy granted would follow as his earned wages increased.

In order to preserve the scheme within reasonable limits and to prevent abuse, certain guiding principles would need to be kept in mind. The whole purpose of the scheme is to prevent relapse and to restore working efficiency. It is not intended as a means of granting financial assistance to each and every sufferer from tuberculosis, however humane such a course might be. To do this would be to defeat the object of the present proposal and would be unfair to sufferers from other chronic conditions which interfere with working capacity. Payment of subsidy should be governed by : (i) the tuberculosis officer's recommendation—under no circumstances should it be paid to a patient who for his own sake or that of his family or the community should be in a hospital or sanatorium ; (ii) the ability of the social worker to arrange work for the patient within his capacity, as assessed by the tuberculosis officer. To the extent to which this is not possible the scheme fails. I think the scheme also should be limited in its application to persons capable of not less than 4 hours' work a day. Persons below this physical standard of half-work are probably better not employed, except in a pastime occupation.

I would suggest the amount of the subsidy might be $\frac{7}{8}$ths of the difference between full and "substandard" wages. This would provide a small incentive, if one were thought necessary, to encourage a man to try to attain full working capacity. The income limit, if the Council think it desirable to impose one, might be, say, £6 a week.

It is clear the success of such a scheme as I have outlined would largely depend on two factors, firstly the ability, enthusiasm, and personality of the social workers employed. These should be most carefully selected from women with training and experience in social science and should be offered a salary not less attractive than that paid to an almoner or a dispensary nurse (say £225–£325 per annum). Secondly the success of the scheme depends upon the willingness of employers to co-operate and accept substandard labour. To effect this will need a great deal of publicity in advance and approaches being made in a suitable and tactful manner to the larger employers in the County.

It is not claimed that the adoption of a plan such as that which I have outlined offers the complete solution to the problem of the care of the tuberculous patient after discharge from sanatorium. There will be many to whom it cannot be applied, by reason of the extent of their disease, the non-co-operation of their employers, or other reasons. To a considerable number, however, it would provide the opportunity of return to work under sheltered conditions with far less fear of relapse, until the worker became completely self-supporting again. It is considered that the amount saved in providing sanatorium or hospital treatment (at approximately £5 a week) for cases of relapse would go far towards financing the proposal."

To meet the special position of the housewife—whose services, though unpaid, are as vital to the domestic economy as those of the breadwinner himself—the opportunity of rest, at any rate to some extent, by the provision of home-helps was suggested. A further proposal was to extend financial aid to meet the cost of boarding-out children from tuberculous families either with relatives or elsewhere in country homes. Such a measure obviously provides not only relief for the mother but is to the great physical benefit of the children themselves by removing them from a source of tuberculous infection.

The recommendations relating to home helps and the boarding-out of children from tuberculous households were adopted by the County Council and incorporated in its scheme for the prevention and treatment of tuberculosis. Consideration of the proposal dealing with the subsidized part-time employment of the tuberculous was deferred pending legislation which it was understood the Government might be introducing on the subject.

Chest Clinics.

Particulars relating to the County Council's chest clinics are set out in the table below.

Areas.	Districts served.	Tuberculosis Medical Officers.	Clinic Addresses.
1	Edmonton, Enfield	Dr. H. Evans ...	279, Fore Street, Edmonton.
1A	Tottenham, Wood Green ...	Dr. S. T. Davies ...	140, West Green Road, Tottenham.
2	Finchley, Friern Barnet, Hornsey, Southgate	Dr. J. R. B. Dobson	655, High Road, N. Finchley. 10, Alexandra Road, Hornsey (Sub-clinic).
2CH	Potters Bar	Dr. F. A. Simmonds	County Sanatorium, Clare Hall.
2A	Harrow, Hendon	Dr. A. S. Hall ...	Redhill Chest Clinic, Edgware. 53, Greenhill Crescent, Harrow (Sub-clinic).
3	Wembley, Willesden	Dr. O. Bruce ...	Pound Lane, Willesden.
4	Acton, Ealing	Dr. B. C. Thompson	Green Man Passage, Uxbridge Road, West Ealing.
5	Brentford and Chiswick, Feltham, Heston and Isleworth, Staines, Sunbury, Twickenham	Dr. G. G. Kayne ...	28, Bell Road, Hounslow.
6	Hayes and Harlington, Ruislip-Northwood, Southall, Uxbridge, Yiewsley and West Drayton	Dr. J. T. N. Roe ...	Local County Offices, 259, High Street, Uxbridge.

The growth of the work at Hounslow Chest Clinic necessitated the appointment in the early part of 1941, of a whole-time assistant tuberculosis officer, Dr. Rees, and it soon became urgent, with the larger staff, to have extended accommodation at the clinic. As a result, in September 1941, the County Council decided to devote the whole of the building to the work of the chest clinic. Formerly part of it had been used to house chronic sick. The necessary alterations were completed in the early part of 1942 and have rendered the work of the chest clinic a great deal easier and more effective.

In November 1941 the area of Potters Bar was transferred to Clare Hall for chest clinic purposes. In consequence 93 patients who had been under supervision at the Finchley Chest Clinic now attend for periodic examination and treatment at Clare Hall, which is much easier of access from their homes, and any other work done in the Potters Bar area under the County tuberculosis scheme previously undertaken by Dr. Dobson is now directed by Dr. Simmonds. Statistics from Potters Bar are still included with those from the Finchley Clinic. Apart from its convenience to the patients concerned, the new scheme gives the sanatorium staff an invaluable opportunity for insight into the work of a chest clinic.

On the 19th January, 1942 a main chest clinic was established at Uxbridge under the direction of Dr. J. T. N. Roe, whose place at Ealing was taken by a new tuberculosis officer, Dr. Brian Thompson.

The new Uxbridge area serves the districts of Uxbridge, Ruislip-Northwood, Hayes and Harlington, Southall and Yiewsley and West Drayton, thereby relieving chiefly the old Ealing district and also, to some extent, the Hounslow and Redhill districts. At the same time, Wood Green district was transferred from the Finchley Clinic to Tottenham Clinic.

During the period under review artificial pneumothorax refill sessions have been inaugurated at Uxbridge and Ealing. Among the extensions to the chest clinic service were the installation of X-ray plant at Willesden and the appointment, in February 1942, of a whole-time radiographer to be shared between Willesden and Uxbridge. An X-ray screening set was also installed at Harrow subsidiary chest clinic.

Increases in the health visiting and clerical staffs of the chest clinics also occurred during 1942 at Redhill, Willesden, Ealing and Hounslow, and a reasonably satisfactory standard of service may now be considered available in these areas. The areas that still remain poorly developed are in the northern part of the county and the fact that the clinics there are not provided with X-ray apparatus, and are unable to conduct refill clinics, means that patients have to attend elsewhere for this treatment, which is not only inconvenient to them, but involves the County Council in a considerable expenditure for work which cannot be fully supervised by its own officers.

Institutional Accommodation.

In its report to the County Council of October, 1941 the Public Health Committee expressed the view that an absolute essential for the successful treatment of an early case of tuberculosis is that a bed if necessary, must be available within a week or two at the longest. Institutional accommodation

on this scale has never existed in this county. Patients have had to wait weeks and sometimes months before admission to sanatoria, and it will be appreciated that, not only does this handicap the recovery of many patients, but unquestionably in the long run means more work for the staff in the tuberculosis service and ultimately involves a greater cost to the County Council.

The following statement shows the number of beds for pulmonary cases belonging to the County Council at the beginning of 1941 :—

Institutions.	*Adults.*		*Children.*	*Totals.*
	M.	*F.*		
Harefield County Sanatorium	108	108	68	284
,, ,, ,, (observation)	4	4	10	18
Clare Hall County Sanatorium	170	74	—	244
Danesbury Manor, Welwyn	—	43	—	43
	282	229	78	589

During the year, as a result of representations made to the Ministry of Health on the shortage of sanatorium accommodation, the Ministry consented to put at the disposal of the County Council 4 hutted wards at Harefield, previously allocated to E.M.S. general hospital purposes, each hut containing 28 beds. One of these huts was filled in June, one in October and one in November, so that at the end of the year Harefield Sanatorium had accommodation for 386 patients.

During 1942, further huts were opened at Harefield, one in January, one in March and one in May (the Ministry having released two further hutted wards), so that at the end of 1942 the accommodation there amounted to 470 beds. In spite of these extra wards at Harefield, by the 23rd September, 1942 there were still 206 pulmonary cases awaiting admission to sanatoria. The serious nature of the waiting list for cases of pulmonary tuberculosis was the subject of representation to the Ministry of Health early in the year and resulted eventually in the Ministry offering to the County Council the whole of the accommodation at Clare Hall Emergency Hospital (excepting a few beds reserved for the Royal Chest Hospital, City Road) to accommodate the Council's tuberculosis cases. This offer was accepted.

After allowing for certain domestic re-arrangements, there will be an increase of approximately 225 in the number of beds available at Clare Hall. It was possible, before the end of the year, to take over a proportion of the E.M.S. huts and, at the end of the year, the number of beds occupied at Clare Hall by cases of tuberculosis was 371 as against 244 at the end of 1940. Unfortunately the shortage of nursing and domestic staff, and of staff accommodation, has proved an increasingly serious factor of delay in bringing beds, which would otherwise be available, into actual use, both at Clare Hall and Harefield.

The number of beds at Danesbury Convalescent Home was increased by 18 in April, 1941.

In addition to providing accommodation in the County Sanatoria, the County Council has for many years paid for the maintenance and treatment of pulmonary tuberculosis cases in sanatoria and other institutions not under its control. In the last two years the number of beds available from this source has continued to diminish, mainly on account of shortage of staff, thus accentuating the difficulty of avoiding a long waiting list.

The following table shows the number of beds occupied by cases of pulmonary tuberculosis in the Council's sanatoria and other institutions at the end of 1942 :—

Institutions.	*Adults.*		*Children.*	*Totals.*
	M.	*F.*		
Harefield County Sanatorium ...	164	220	68	452
,, ,, ,, (observation)	4	4	10	18
Clare Hall County Sanatorium ...	211	140	20	371
Danesbury Manor, Welwyn	—	60	—	60
Other Institutions	234	145	22	401
	613	569	120	1,302

Besides the need of beds for treating patients capable of appreciable improvement in health, the County Council has the obligation of providing treatment for a number of advanced cases for whom little more than palliative treatment in the shape of rest and nursing is possible, as owing to the prolonged and incapacitating course of the disease, it is not possible, in many instances, for tuberculosis cases in the terminal stages to receive adequate care at home. There is also a dearth of beds in the county for this type of case. At the beginning of 1941 the beds reserved in the County Hospitals for cases of advanced tuberculosis were as follows :—

Central Middlesex County Hospital	25
North Middlesex County Hospital	60
Redhill County Hospital	64
West Middlesex County Hospital	78
	227

This number of beds for advanced cases fell far short of the requirements. There is a waiting list for the hospitals as for the sanatoria and in this group there are cases that need urgent admission in the interests both of themselves and their families. The tuberculosis officers reported at the end of 1941 that they had knowledge of some 150 patients not likely to benefit by sanatorium treatment, but who, for these reasons, should have been in institutions. A proportion of these were ill patients in need of bed nursing for whom no accommodation could be found, but most of them presented a further type of tuberculosis, namely fairly advanced cases unlikely to benefit by sanatorium treatment, yet not so ill that they have to be in bed all day. For this type of advanced patient there is as yet no suitable accommodation at all.

In October, 1941 the Ministry of Health consented to two of the E.M.S. huts at Staines County Hospital being transferred to the County Council for tuberculous patients. This provided 56 extra beds which are mainly occupied by advanced cases. Except for some 40 further beds, appropriated for tuberculosis in the other general hospitals, no further accommodation for this type of case has been provided in the last two years. The shortage is most acute in the northern part of the county.

The Public Health Committee, when considering the bed situation in September, 1941, felt that some degree of central control was necessary to ensure that the different types of beds in the sanatoria and hospitals were used to the maximum advantage, i.e. that chronic cases in sanatoria did not block beds for which early cases in a county hospital might be waiting. To meet this need for co-ordination it was arranged that Dr. Houghton, Physician at Harefield Sanatorium, should allot part of his time to this work and should be relieved of his duties in connection with the supervision of the work at Danesbury Convalescent Home. In October, 1941, therefore, Danesbury was transferred to the supervision of Dr. Simmonds, medical superintendent of Clare Hall Sanatorium.

The following tables, and notes prepared by Dr. Stokes and Dr. Simmonds, give some indication of the work carried out during the two years at Harefield and Clare Hall Sanatoria.

Harefield County Sanatorium.

Admissions, Discharges and Deaths.

	In the sanatorium on 1st Jan.		Admitted during the year		Discharged during the year		Deaths		Remaining in the sanatorium on 31st Dec.	
	1941	1942	1941	1942	1941	1942	1941	1942	1941	1942
Treatment :										
Adults—										
Men ...	103	132	167	238	125	195	13	16	132	159
Women ...	105	158	237	328	164	244	20	27	158	215
Children—										
Boys ...	32	34	40	45	36	42	2	1	34	36
Girls ...	32	33	36	40	35	39	—	3	33	31
Observation :										
Adults—										
Men ...	3	3	33	28	33	28	—	—	3	3
Women ...	2	1	30	40	31	36	—	—	1	5
Children—										
Boys ...	1	4	18	25	15	25	—	—	4	4
Girls ...	2	3	16	20	15	18	—	—	3	5
Totals ...	280	368	577	764	454	627	35	47	368	458

Average number of beds available :—

	1941	1942
Treatment cases	309	430
	(Children 68)	(Children 68)
Observation cases	18	18

Average number of beds occupied :—

Treatment cases	298	426
	(Children 62)	(Children 67)
Observation cases	13	15

Special treatment :—The following measures were carried out upon patients who were discharged after treatment during 1941 and 1942 :—

	1941	1942
Artificial pneumothorax	98 (7 bilateral)	164 (26 bilateral)
Operations on the phrenic nerve	21	38
,, ,, ,, ,, combined with other operations	23	74
Extrapleural pneumothorax	5	6
Thoracoplasty	11	24
Cavity drainage (Monaldi)	2	9
Adhesion section	53	173
Gold treatment	4	6
Bronchoscopy	6	6
Pneumoperitoneum	—	4

During 1941 a total of 2,747 out-patient attendances were made for artificial pneumothorax refills. In 1942 there were 2,659 attendances for this purpose.

Clare Hall County Sanatorium.

Admissions, Discharges and Deaths.

	In Sanatorium 31st Dec.		Admissions.		Discharges.		Deaths.		In Sanatorium 31st Dec.	
	1940	1941	1941	1942	1941	1942	1941	1942	1941	1942
Males	163	176	315	306	273	257	29	15	176	210
Females ...	71	90	206	256	173	186*	14	11	90	149
Children ...	—	—	—	24	—	5	—	—	—	19
Totals	234	266	521	586	446	448	43	26	266	378

(Note.—*109 to Danesbury).

	M.	F.	C.	Total
Total complement of beds (as from 1.12.42) ...	197	154	20	371

	1941	1942
Average number of beds available	263	280
Average number of beds occupied	260	279
Average length of stay (discharges)	185 days	186 days
Average length of stay (deaths)	285 days	268 days
Average proportion of bed-cases (i.e. in bed for 2 meals or more).	83%	87%

Special Treatment : the following measures were carried out upon patients who were discharged during 1941 and 1942 :—

	1941	1942
Artificial pneumothorax	186	185
,, ,, combined with other measures	149	162
Phrenic nerve operations	93	109
Cauterization of adhesions	136	145
Extrapleural pneumothorax	9	9
Thoracoplasty	31	29
Gas replacements or lavage	7	—
Other operations	15	13
Sanocrysin	9	11

The number of artificial pneumothorax refills carried out at the sanatorium were 11,278 in 1941 and 11,650 in 1942.

The year 1942 has been marked by increasing difficulties in maintaining all the hospital services owing to the problems of labour and supply. To an increasing extent, skilled and active workers have been replaced by unskilled and physically less effective personnel ; there has been in addition an actual shortage in some groups, especially among nurses, domestic and manual workers. In supply, there is now deficiency in some items which is part of the shortage which is nation-wide. Long delays occur in repair of surgical instruments, and many makeshifts have to be used. Building maintenance becomes more difficult. The provision and cooking of food has been well maintained and the foodstuffs supplied to patients appear to be adequate in amount and good in quality ; though there is more monotony of dishes and the attractive pre-war variety of menu and cooking is not possible. The actual net gain in weight of the last 100 patients discharged in 1942 is 667 lbs., an average of 6·7 lbs. per person (Males 7·0 lbs. and Females 6·2 lbs.). These gains in weight, though not the best or only expression of the progress of patients, do at least suggest that food is adequate. This gain is a little less than before the war.

Venereal Diseases.

The years under review saw a considerable expansion in the County Council's activities directed towards the combatting of venereal diseases. The Council's scheme, which was evolved in 1917, in the course of the first World War, is a joint arrangement in which London and the home counties participate and is based upon the use of a number of general and special voluntary hospitals in the metropolis, supplemented by a clinic at the Prince of Wales's Hospital, Tottenham, which is staffed and organised by the hospital authorities on behalf of the County Council. One of the principal considerations which at that time guided the County Council in virtually restricting its scheme to the voluntary hospitals of London was that a very large proportion of Middlesex residents travelled daily to London to their work and so, without inconvenience, could obtain treatment at a London hospital. Before the outbreak of the present war, however, it was becoming evident that facilities were no longer adequate to meet changing conditions. Since the scheme had been framed in 1917 the population of Middlesex had almost doubled and had altered in character. A number of new industries had become established in Middlesex so that the County could no longer be regarded mainly as a dormitory for London workers.

Figures from many of the London Hospitals showed that the ratio of Middlesex attendances to new cases (i.e. the average number of attendances per new case) was much lower than the corresponding ratio for London residents, suggesting that Middlesex patients might be experiencing difficulty in maintaining attendances at London clinics—a matter of great importance in view of the length of treatment necessary in cases of syphilis before cure can be pronounced. In the light of these considerations the Council decided in 1939 to provide more clinics in Middlesex, but the outbreak of war brought this and other building plans to a standstill. In 1940 the subject was revived and in spite of the difficulties it was decided to proceed with the establishment of a new clinic at Central Middlesex County Hospital, Willesden, where the change in the arrangements for dealing with walking wounded made a building which had been adapted as a first aid post available for conversion into a venereal disease clinic. The alterations were delayed owing to shortage of labour and materials, but eventually the building was ready, equipped and staffed and was opened in April, 1941.

At the close of 1940 the Ministry of Health issued a circular (2181) drawing attention to the increase in the incidence of venereal diseases already evident since the outbreak of war, urging local authorities to provide more treatment facilities and offering a grant of 75 per cent. of approved expenditure incurred in extending the treatment service to meet war-time needs. Facilities in the west and south of the County left much to be desired but lack of suitable buildings was the difficulty. By a fortunate chance, however, this was overcome. About this time, as part of the Emergency Hospital Scheme, plans were being prepared for the construction at Hillingdon and West Middlesex County Hospitals of units for the cleansing of stretcher cases contaminated by blister gases and it was apparent that with but slight adaptation these structures could be made to serve also as very satisfactory venereal diseases clinics. These dual purpose buildings were therefore constructed and the new venereal diseases clinic at Hillingdon County Hospital was opened in December, 1941, and that at West Middlesex County Hospital in May, 1942.

The table on page 43 gives information regarding the work of the individual clinics in Middlesex in 1941 and 1942, and on the same page is set out a comparative statement of the work done at clinics in London and in Middlesex hospitals during the past five years. The growth of the work of the hospitals in Middlesex is clearly shown, and probably indicates the need for further clinics for the treatment of venereal diseases within the County.

In October, 1942 the County Council decided to make an annual grant to the Central Council of Health Education of approximately £500 (five shillings per 1,000 population), in recognition of the publicity work in connection with venereal diseases undertaken by this organisation.

	Central Middlesex County Hospital*		Hillingdon County Hospital.†		West Middlesex County Hospital.‡		Prince of Wales's General Hospital, Tottenham.	
	1941	1942	1941	1942	1941	1942	1941	1942
Number of persons dealt with at the clinics for the first time and found to be suffering from :—								
Syphilis	73	83	30	48	—	74	88	95
Soft chancre ...	1	2	1	—	—	1	1	2
Gonorrhœa	81	95	1	52	—	35	93	102
Conditions other than venereal ...	115	287	1	124	—	95	223	295
Totals	270	467	33	224	—	205	405	494
Total attendances ...	4,745	10,672	99	6,628	—	2,334	14,045	9,255

* Clinic opened April, 1941. † Clinic opened December, 1941. ‡ Clinic opened May, 1942.

Comparative Statement for the Past Five Years.

	MIDDLESEX Patients treated at									
	London Hospitals.					Middlesex Hospitals.				
	1938	1939	1940	1941	1942	*1938	*1939	*1940	1941	1942
Number of persons dealt with at the clinics for the first time and found to be suffering from :—										
Syphilis	322	254	217	176	224	71	68	45	177	285
Soft chancre	5	4	—	5	6	2	1	—	2	5
Gonorrhœa	1,096	831	645	593	523	184	142	92	152	261
Conditions other than venereal	1,759	1,558	1,143	1,172	1,367	223	224	176	294	726
Totals	3,182	2,647	2,005	1,946	2,120	480	435	313	625	1,277
Total attendances ...	90,699	72,648	48,910	40,892	43,761	30,394	18,653	13,197	16,462	26,959
Number of "in-patient" days of treatment ...	4,367	2,517	1,276	1,552	1,882	391	502	200	*39	*135

* Prince of Wales's Hospital, Tottenham only. Figures for this hospital do not include non-residents of the County, the costs being borne by the Middlesex County Council under the agreement with the hospital.

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HARRISON & SONS, LTD., Printers to His Majesty The King, St. Martin's Lane, London, W.C.2.